

Manufacturers Record

EXPONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development
of the South and Southwest as the Nation's Greatest Material Asset

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America's Amazing Advance.

TWENTY-THREE years ago, or in 1906, reviewing the past and forecasting the future of this country, we said that America "must learn to think in billions." Let us add to that now and say that we must learn to think in hundreds of billions, for the billion-dollar mark has long since been passed and now we are dealing in figures so stupendous that only hundreds of billions can begin to express the progress of this country in wealth and achievement. And yet we are only at the beginning of our material development.

Writing in the Review of Reviews and also in this paper of what we then termed "America's Amazing Advance," in 1906 we said:

"Until we learn to think in billions we cannot measure the meaning of the material development of the United States during the last quarter of a century; much less can we mentally grasp the potentialities which the coming years have in store for us. Our progress, however, has only been the pioneering work of clearing the wilderness, or ploughing and planting amid the stumps which mark the new land and the settler. Not yet have we had time to pull the stumps and drain the swamps. What we have been doing is like sowing by hand and gathering our harvest with the old sickle as compared with what we are now preparing to do. In our pioneering work we have had to disregard permanency to meet the immediate needs of the hour. We have had to make haste even though it meant some waste. However, like the pioneer who built his rude log hut and tilled the stump-ridden soil until increasing gains made possible the building of a better home and the clearing of his land in order to utilize labor-saving implements, we had to pursue similar methods in our national development until now, when we have entered upon a period where scientific farming will take the place of old soil-destroying farming and where scientific skill in manufacturing will mean changes as radical as those which mark the difference in farming methods."

And then after a review of the progress of this country during the preceding quarter of a century, or more, that summary of the situation closed with the statement:

"The progress of the last quarter of a century is merely the beginning of our real broad national advancement, and what we have wrought in that period will be doubled, and in many things quadrupled during the next 25 years."

It was suggested that business grows much more rapidly than population, and that the output of nearly all manufactured and agricultural products increases at an ever accelerating rate by reason of modern machinery, inventions and research which make possible the doubling and quadrupling of man's working capacity.

Production More Than Doubled in 25 Years.

These predictions are now being rapidly fulfilled. In many things the growth of the last 25 years has indeed doubled and quadrupled as compared with what we, as a country, were doing in 1905, the year on which these statistics were based. Since 1920 automobile production has more than doubled, building contracts awarded have more than doubled, and

kilowatt hours of electricity produced more than doubled. Thus in many instances there has been a doubling of production even within the last seven or eight years.

Spending \$12,000,000,000 to \$15,000,000,000 a Year on Motor Vehicles.

What we then called "America's Amazing Advance" pales into insignificance compared with America's amazing advance of recent years. Our progress is so stupendous that it is almost impossible to comprehend it, or to materially grasp its significance. At that time the automobile was an unknown factor in the life of this country and of the world. We had no radio or airplane industries. In a few short years they have grown into the billion-dollar class. Now we are spending between \$12,000,000,000 and \$15,000,000,000 a year in the purchase and maintenance of automobiles and motor trucks. With a production of 4,630,000 in 1928, predictions are now being made of an output of 6,000,000 motor vehicles during 1929.

At the beginning of the automobile industry it was freely predicted by many of the foremost bankers of the country that the nation was headed for financial ruin because of the amount it was then expending for automobiles. We have learned better since then. We have learned that the automobile is a great machine for increasing production, for doubling and quadrupling the ability of the country to do business. It is no longer simply a pleasure vehicle. It is an essential element in the creation and maintenance of our vast business structure. It has compelled the building of good highways throughout the land, causing us to invest billions of dollars on highways. And yet other billions must be spent to complete and maintain the highway system. But strange to say, new highways are one of the things in existence that, broadly speaking, cost nothing. They create values so rapidly and enhance the means of doing business that they more than pay for themselves even from this viewpoint; but they are now being built and maintained by a tax on gasoline which does not cost the taxpayer a cent, because by means of good highways his consumption of gasoline and the wear and tear on his tires and his car are lessened to such an extent as to far more than offset the amount he pays for gasoline tax.

Growth of Insurance the Marvel of the Age.

Perhaps nothing more surely marks the advance of the nation than the almost incomprehensible development of insurance. Not long ago a New York insurance company dedicated to its own use a building which, including the ground, had cost \$25,000,000, and the president in giving some details in regard to the structure stated that with the continued rate of progress such as we have had for some

years this gigantic structure will be equal to the needs of his company for only about 25 years.

Prior to his death Abram S. Hewitt, one of the prophets or seers of the business world, said to the writer that this country rebuilds everything about three times in a century, and that the office building or plant of today will within a third of a century have to be torn down and reconstructed, or a new building take its place. How true that prediction was is seen all over America, and is emphasized by the statement of the president of the insurance company, who said that after spending \$25,000,000 on a new building they were only preparing for 25 years of its normal growth. Likewise by the proposed demolition of the Waldorf-Astoria, built some 35 years ago and for years regarded as the foremost hotel of the world, a 50-story office building to be erected on the site.

During this year the aggregate insurance outstanding will be about \$100,000,000,000 by American companies on American lives. This is over 70 per cent of the world's life insurance and we only have 6 per cent of the world's population. No phase of America's advancement is more significant from the material as well as the sociological standpoint than this gigantic increase in insurance, which marks an advance in one of the most vital movements for the benefit of humanity that the world has ever seen. There are 65,000,000 policyholders. In 1918 the assets of the life insurance companies of this country were \$6,475,000,000, as compared with \$16,000,000,000 at the end of 1927. In the last seven years the assets have doubled, and a record increase of \$1,600,000,000 in assets was made in 1928. In 1918 the aggregate life insurance in the country was only \$29,870,000,000 and twenty years ago it was \$2,000,000,000 less than the amount of new insurance of \$18,500,000,000 written and paid for during the past year. This is a form of saving and of protection to families when the bread-winner has passed away that combines to make one of the most important movements in human history. The total premium income is over \$3,000,000,000 annually.

Since 1921 life insurance in first premiums paid and income of companies increased 70 per cent, while bank savings deposits increased 58 per cent. Other forms of saving are the fraternal organizations, with over \$9,800,000,000 of insurance in force, and Government insurance with about \$2,900,000,000 in force.

Group insurance, a comparatively new industry, but one of tremendous importance, now covers 5,000,000 workers, or about one-eighth of the gainfully employed people of the country, and amounts to \$7,500,000,000, which is within \$1,000,000,000 of the total of all life insurance in force in 1900.

American life insurance companies have more than \$6,214,000,000 invested in real estate and mortgage loans of which \$1,936,000,000 is in farm mortgages. They have invested \$2,759,000,000 in railroad stocks and bonds, and \$1,329,000,000 in public utility securities. They also are heavy investors in county, city, state and Federal securities. Thus, in bringing together the vast sums paid into insurance companies a tremendous fund is created which goes back to the people in the way of investments in enterprises upon which the progress of the country largely depends, helping the farmer, the railroad, the public utilities, municipal, county, state and national affairs.

The assets of casualty, surety and miscellaneous stock companies which amounted to \$852,000,000 in 1918, reached \$2,173,000,000 in 1927.

The assets of fire and marine insurance companies which were \$1,190,000,000 in 1918, reached \$2,248,000,000 in 1926.

Savings Bank Deposits Tell of Vast Increase in Wealth.

But vast as is the amount that was paid for life insurance last year, and which goes on in an ever swelling volume, the deposits in savings banks continue to increase with amazing rapidity, and so do the investments in building and loan asso-

ciations, another form of saving which is commanding the attention of millions of people. Despite the depression in business during last year and considerable unemployment, the aggregate savings deposits in the banks of the country on June 30, 1928, amounted to \$28,400,000,000 according to official figures; or \$2,327,000,000 more than for the previous year, while ten years ago the savings deposits in all banks were only \$11,535,000,000. In 1905 depositors in savings banks numbered 7,696,000, and there are now a total of 53,188,000 individual savings depositors. This does not necessarily mean 53,000,000 distinct persons, for many have two or three savings accounts.

W. E. Albig, deputy manager of the American Bankers Association, reports that the gain in the number of savings depositors was 5.2 per cent for the year as against a gain in population for the entire country of 1.2 per cent.

In Mr. Albig's summing up of the per capita savings of the United States as a whole the South does not stand high in the list, for the reason that until within recent years savings institutions had not made much progress in that section. But there are now 4,537,000 depositors in savings institutions in the South, and the percentage of growth in 1928 over 1913 shows a rate in the South far and away in excess of any other part of the country, or 250 per cent gain per inhabitant as compared with 197.2 per cent in the Middle Atlantic States, which was the next highest on the list, while the average for the entire country was 166.3 per cent. Thus, so far as percentage can measure the progress of the South, it is running far ahead of the country as a whole, or of any other section, in the number of savings depositors.

In 1917 the total resources of all building and loan associations in the United States were \$1,769,000,000. At the beginning of 1928 these figures had been increased to \$7,178,000,000, while in 1900, or even 1905, the resources of building and loan associations were almost insignificant as compared with the present stupendous figures. And this growth goes on with amazing rapidity.

The Enormous Gain in Banking Interests.

In 1905 our national banking capital was \$808,328,658; it is now over \$3,525,000,000. The total assets of national banks in 1905 were \$7,563,155,823; and the total deposits in all banks, national, state, private and savings, and loan and trust companies, amounted to \$11,350,000,000; whereas for the fiscal year 1928 the total deposits in all the banks of the country amounted to \$53,245,000,000 and the aggregate resources were \$71,575,000,000.

It is reported that the increase in the price of securities listed on the New York Stock Exchange has advanced \$15,000,000,000 since January 1, 1928. There were several days when sales on the New York Stock Exchange exceeded 6,000,000 shares, breaking all existing records in volume of transactions.

The aggregate assets of all corporations are over \$150,000,000,000. The total capital issues of corporations for 1918 was \$1,345,000,000 as against \$5,970,000,000 in 1927. Conservative bankers estimate that capital flotations have been more than doubled in the last eight years.

In many other lines of material activity progress has been equally as great, while our educational advance as measured by the amount expended for maintenance of public schools has been in keeping, and in many cases even in advance of the progress in manufacturing and finance.

Railroads Spent \$650,000,000 in 1928 for Betterments and Must Do Even More.

The announcement of the Pennsylvania Railroad a few weeks ago that it will spend \$100,000,000 on the electrification of its line between New York and Philadelphia, and to that will add enormous expenditures for new terminals and ware-

houses, new cars and rolling stock, taken in connection with the fact that the road intends also to electrify its line from Philadelphia to Washington and spend about \$20,000,000 in and around Baltimore, gives us some conception of what that road realizes is to be the future growth of the country and of its own traffic.

In 1906 the total revenue freight carried by all the railroads of the United States amounted to 1,631,374,000 tons, whereas for 1926 the total tonnage was 2,627,492,000; and had it not been for the development of motor traffic it would have been impossible for the railroads of the country to expand their facilities rapidly enough to take care of the growth which has been under way. The action of the Pennsylvania Railroad gives an indication of the fact that the farseeing railroad men of the country realize they must get ready to spend some billions of dollars in the expansion of their facilities in trackage, rolling stock and terminals.

The investment in the country's railroads in 1916 was \$17,842,000,000 and at the end of 1926 it was \$23,880,000,000, excluding switching and terminal companies which had a capitalization of \$701,000,000, or a probable total investment now of over \$24,580,000,000. Approximately \$650,000,000 was expended by Class 1 lines in 1928 for new railroad construction and equipment, and last year the amount was low. More than \$7,200,000,000 has been invested in railroad expansion and in betterment work during the past ten years, but the railroads have not more than kept up with the demand upon them, especially for freight traffic.

Entering Upon a New Era in American Development and Wealth.

And now as we enter upon a new period of American development still greater expenditures must of necessity be made.

The development of the electric light and power business has been one of the marvels of the age, and conservative authorities estimate that these interests must spend at least a billion dollars a year for the next ten years, not to advance ahead of the nation's progress, but simply to keep up with the demand for light and power.

In 1905 the production of Portland cement was 40,100,000 barrels; the output is now over 281,000,000 barrels.

In 1905 the production of petroleum was 134,000,000 barrels; in 1927 it was 1,203,000,000 barrels.

Coal mined in 1905 was 350,645,000 tons compared with 600,456,000 tons in 1927.

Iron ore production has increased from about 40,000,000 tons in 1905 to over 60,000,000 tons annually.

In 1905 the total mineral products of the United States amounted to \$1,289,000,000; in 1927 it was more than \$5,520,000,000.

The total value of the manufactured products of the United States in 1900 was \$11,407,000,000, and in 1906 it was estimated at \$17,000,000,000. Now we are producing at the rate of about \$62,706,000,000 per year.

In 1906 when the review of the past and the forecast of the future of America was published, we had a foreign trade of imports of \$1,226,000,000, and of exports \$1,744,000,000, or a total of \$2,970,000,000. Our foreign trade now aggregates more than \$9,100,000,000 a year, divided into about \$5,000,000,000 for exports and \$4,100,000,000 for imports for the calendar year 1928.

In 1906, the total value of the exports of our manufactured products amounted to \$603,000,000. Now we are exporting annually more than \$3,500,000,000 of manufactured products.

Gigantic Enterprises That Mean More Billions.

Surely as we review what has been accomplished in recent years and study the forces which are now at work on a more gigantic scale than could ever have been imagined a few

years ago, it can be readily seen that the prediction made in 1906 that the progress of the preceding quarter of a century was merely the beginning of our really broad national advancement, and that what we had wrought in that period would be doubled and in many things quadrupled during the next 25 years, has been fully justified. Pre-eminently in the South is this progress more marked than could possibly have been anticipated 25 years ago. Today the eyes of the whole country seem to be centered upon this section, and Southward the star of investment and industrial empire takes its way, and with amazing rapidity. One announcement after another of great enterprises costing anywhere from \$5,000,000, running upward to \$100,000,000, are being reported. The nitrate plant under construction in Virginia, upon which it is reported \$35,000,000 has already been expended, is according to later reports to be increased until the investment represents largely over \$100,000,000. About \$12,000,000 has been invested by the Southern Sugar Company in Florida and \$30,000,000 more is reported will be spent in the next five years on sugar development and use of bagasse for the manufacture of Celotex as a by-product.

Not in existence a few years ago, the development of rayon reads like a romance. In the South alone some \$200,000,000 is being invested in this industry.

The movement of the Goodyear Tire & Rubber Company to begin the construction of a plant which is ultimately to represent an investment of about \$30,000,000 in Alabama, and the recent action of the Goodrich Rubber Company in the purchase and proposed large development of a Georgia cotton mill for making fabric, might be followed by an enumeration of great enterprises so long as to tire the reader with the mere details. Southern railroads, appreciating this situation, are expanding their facilities in order that they may be ready to keep up with the progress of the South, for that progress promises to fully tax all the available transportation facilities by rail, by water and by highways. Likewise Southern power utilities are bending every effort to supply the growing demand for power. Great steam and hydroelectric projects have been built with others under way and planned.

Achievements That Stir the Imagination.

And yet as one studies the situation in the light of the past it is easily seen that we have indeed been doing but pioneering work. It was said in 1906 that all the progress up to that time was merely pioneering. That condition still holds good, for scientific research, the creation of many things through the marvelous power of chemistry, the radio, the airplane, and innumerable other modern activities, all indicate that we are still doing pioneering work, and that the next 25 years will show a growth immeasurably greater than what we now have—a growth so vast and far-reaching that even the most daring seer would hardly venture to predict what is ahead of this country. Our wealth, now probably \$400,000,000,000 or more, though estimated by some statisticians at something less, is increasing at a rate so great that one hardly dare attempt to figure up how much it may be. But the total value of our manufactured, mineral and agricultural products which furnish the basis for our national income, now amounts to about \$85,000,000,000 a year.

The poetic genius who could marshal these facts and in burning words of eloquence tell the story of the past, the present and the future, might write an immortal epic; but perhaps the poet who could do justice to the subject has not yet been born. However, the study of these statistics fires the imagination, stirs the heart with a new and throbbing pulsation as mind and heart combine to endeavor to pull aside the veil which curtains the future and permit us to tell the story of America's amazing advancement—an advancement in cultural life, in higher wages, in broader and more general prosperity than the mind of man has ever conceived even for the wildest dream of an imaginary Utopia.

HOW FOREIGN SUGAR IS FORCED DOWN AMERICAN THROATS.

THE American Sugar Cane League asks the American people to turn from imported sugar to American sugar and offers the American producer and consumer the slogan, "Hitch Our Wagon to the Stars and Stripes." The people of the United States eat approximately 6,000,000 tons of sugar every year and the League points out that:

"Of all the necessities of life that we can produce in sufficient abundance for our needs, there is just one we do not produce in that abundance, and that is sugar. The reason we do not produce it in sufficient quantity for our needs is because it has been made, on occasion, a political football and has paid the price of legislative compromise. . . . The picture of our national completeness should have nothing missing from it that can readily be put in. Sugar is such a thing."

Corroborative of its statement, the League cites the fact that production of sugar in Continental United States rose from 755,772 tons in 1906 to 944,166 tons in 1926, an increase of 24.91 per cent, and in Cuba from 1,390,932 to 5,462,756 tons, or 292.74 per cent, in the same period, the production for 1926 being taken because the production of later years in Cuba has been held down by Presidential decree. "The bulk of the sugar produced in Cuba is sold to, and imported into, the United States and the present and all previous tariffs on Cuban sugar, doubtless without intention, have been so graduated as, in actual practice, to largely encourage and develop sugar production in Cuba and to retard the development of sugar production in the United States," is the League's comment on the figures. Of special interest to the South is its further statement:

"The sacrifices that have been made, the money that has been lost, the impoverishment that has been suffered in trying to produce in the United States all the sugar required by our people has all been incurred because there have been and are men among us who have refused to believe that it could or would be the policy of the Congress of the United States so to legislate that it would be impossible to do in this country what other countries urge and encourage and almost compel their nationals to accomplish—the development of the particular industries recognized as necessary to self-sustenance."

And the necessity for such domestic production of this staple is then shown by the League as follows:

"We are producing in the United States and its possessions at present about 2,500,000 tons of sugar. Of this amount, more than half is produced in tropical islands which we happen to possess and which are separated from us by the open sea. Their sugar industries are of the United States only in a legal sense. In time of war, their sugar industries would very likely be of only academic interest to us. In the world war, even so narrow a strait as the English Channel was made precarious."

"In our picture of a national supply of home grown sugar, therefore, we must visualize our great West and our Middle West, our tier of States along the Canadian border during practically all its length, our vast stretches in Texas along the Rio Grande and for hundreds of miles into the interior of that State, our alluvial lands in Louisiana which alone, if given a proper chance, could produce over 1,000,000 tons of sugar by themselves, and our recently discovered agricultural empire in the Florida peninsula, where sugar cane culture is now being carried on under as good conditions as exist anywhere in the mainland of the United States and where almost limitless areas soon will be available for the planting of sugar cane. Not a tithe of the lands we have in our country suitable for sugar beets or sugar cane would have to be utilized to bring about the production of all the sugar we consume."

So, "discarding every consideration except the patriotic necessity of making our country self-sustaining in the matter of sugar," and every consideration except "the national pride that will impel us to lift our sugar industry to the level of our other industries," the League concludes:

"Let us have a tariff on sugar that will enable it to hold

up its head among other American industries—a tariff that will expand the sugar industry until it is big enough to fill all our requirements for sugar. Then there will ensue a healthy and wholesome competition between the domestic sugar producers themselves that will be welcome to all and objected to by none, instead of, as now, competition with foreign producers operating mostly in tropical countries under conditions subversive of the high industrial ideas and platforms on which this nation is striding toward the goal of 'luxury as well as life' for every working man."

No more straightforward and convincing case has been set forth by any American industry than this by the American Sugar Cane League. Against its argument for protection against near-pauper products, low tariff advocates will plead for "cheap" sugar for the American people. That plea is fallacious and demagogic. An increase of one cent a pound in the price of sugar would amount to about \$120,000,000 on 6,000,000 tons, or about one cent each for the people of the United States. And, this increase would be more than counterbalanced in actual money by the stimulation of this great industry in the United States, by increased employment, by increased purchasing power of the South's sugar producing area, by increased tax returns on increased land values, and in many other ways. Competition by American producers with each other would lead to practical and profitable economies in production and distribution that would bring down the price of the commodity; whereas, it is almost impossible for American producers to compete successfully with the foreign near-pauper wage scale. Equally strong and convincing is the argument for protection of the American people against a sugar shortage in time of war.

Probably of even greater importance as a reason for protecting domestic sugar producers are the possibilities to be found in the development of the by-products of this industry. Through research there have been added whole new industries based on the sugar crop. The production of industrial alcohol, and building materials from the hitherto waste bagasse has in a few years passed the infant industry stage. Therefore, whenever the tariff question is discussed, sight should not be lost of the fact that protection to sugar as a food crop would also mean protection of other industries dependent upon it and those certain to be developed in the future through chemical research.

A \$30,000,000 SUGAR ENTERPRISE.

THE great sugar enterprise at Clewiston, Florida, established by men long identified with the sugar industry in Louisiana and elsewhere and who, therefore, are not merely making an experiment, should be of tremendous interest to the entire country. We have depended too largely on other countries for the enormous quantity of sugar consumed in this country. We have played with the tariff on sugar for many long years; probably no other industry in the country has had so many ups and downs in tariffs as sugar. It is to be hoped that with the determination of many Southern Congressmen to favor a protective tariff, supported of course by the views of Republican Congressmen on this subject, we may at last have a sound and sane protective tariff on sugar, that our vast sugar-making resources in cane and beet sugar alike may have adequate protection, and thus keep at home some portion of the hundreds of millions of dollars we now annually send abroad for sugar.

In 1886 the MANUFACTURERS RECORD published an enthusiastic letter on the possibilities of Florida as a sugar producing state, by Hon. Wm. D. Kelly of Pennsylvania, then known as "The Father of the House of Representatives." The fulfillment of Judge Kelly's prediction is now seen in the great work that Mr. Dahlberg and his associates are carrying on, in which it is reported they expect to invest about \$30,000,000 in sugar-raising and by-product enterprises. An article on the Clewiston plant will be found elsewhere in this issue.

A WORTHY ACHIEVEMENT.

UPON the retirement January 11 of Frank Page, chairman of the State Highway Commission of North Carolina, to enter private business, the good roads movement lost one of its most active workers. Under his leadership during the past eight years, North Carolina made a highway building record such as to focus the attention of road builders throughout this and other countries on the state's program. As chairman of the commission, Mr. Page became nationally and internationally known for his good services, for his ability as a highway engineer and builder, and withal as a financier. The work accomplished was a potent factor in lifting the state to the high level of progressiveness and prosperity that has prevailed in recent years.

The highway program that Mr. Page mapped out has largely been consummated and North Carolina has one of the finest networks of year-round highways in the country, having expended more than \$175,000,000 in new construction and maintenance since 1921, but not a penny has been added to the burden of the taxpayers. The construction of highways has been financed through bond issues, which are being paid off from the automobile license tax and the gasoline tax, both of which are paid by those who use roads and who save money in operating their motor vehicles over improved highways. According to Mr. Page, within the next five years these taxes will prove sufficient, not only to retire all outstanding road bonds, but also to provide for the extension of the highway system as the growth of the state makes extensions necessary, as well as provide necessary funds for maintenance and the building of several hundred miles of hard surface roads annually.

Serving as State Highway Commissioner since 1919 Mr. Page, in 1927, was reappointed by Governor McLean for a period of six years. There has been considerable agitation in favor of persuading him to remain as chairman of the highway commission on a part time basis, continuing to give to road builders the benefit of his advice and experience. This will require, however, a special act of the legislature as the Chairman of the Highway Commission is now a full-time position, paying \$15,000 a year, the highest salary the State of North Carolina pays to any official.

Among the benefits which have come to the state from its highway system have been the relief of local taxpayers from the burden of maintaining roads; the elimination of waste incident to decentralized control and supervision by untrained men; the establishment of scores of consolidated schools, to and from which pupils are transported by motorbuses; great savings to the farmers through the ability to transport crops, especially perishables, by truck; opening up of hitherto inaccessible parts of the state; attracting of thousands of tourists to the state; development of a network of bus lines which now provide convenient and frequent passenger service throughout the state; also, ease of travel has united the people of the state and made residents of one section better acquainted with those of another. All of this has stimulated building and industry so that the state has developed at an amazing rate in recent years.

Mr. Page has accepted a post as vice-president of the Wachovia Bank and Trust Co., Winston-Salem, and will be connected with the Raleigh office of that institution, which handles the business of the company for eastern North Carolina. At a recent testimonial dinner given by the Winston-Salem Chamber of Commerce, with 200 of the state's leading citizens paying tribute to the man who constructed what is conceded to be one of the greatest highway systems in the country, Mr. Page in giving an account of his stewardship said:

"I like to think that during these years I have not simply spent your money, but that I have been instrumental in building for my state a great enterprise and am now able to say to Governor Gardner and the general assembly—'Here it is,

a self-supporting, going concern, no longer a suppliant for appropriations; but able to pay off and retire all of the bonds issued in its behalf, maintaining itself and expanding as rapidly as legitimate demands of traffic require.'"

It is to be hoped that the good roads movement, through Mr. Page's retirement from active service on the "firing line," so to speak, will not entirely lose this ardent soldier of progress, who has been such a determined and resourceful leader in highway development.

FARM PROSPERITY NOT YET IN EVIDENCE.

DISTRESSING reports as to farm conditions pour into the MANUFACTURERS RECORD office from many sections of the country. Some recent statements made to the writer by people who own farms in the Far West are, we are afraid, indicative of the general condition of many farmers in that section.

A man of some wealth who owns farms in Montana and the Dakotas, told the writer a few days ago that a good many farms are being sold by states or counties for taxes; as there are no buyers the land has to be taken in by the state, and if the farmer ever tries to redeem his property he has to pay 12 per cent interest to these states, a rate which he regarded as an outrage, and which he thought should be brought to the attention of Congress in trying to find a remedy for farm depression. If, said he, these Western States would permit the redemption of these farms at the rate of 6 per cent interest, or permit other buyers to take them in at that rate, many farms could be saved, but that it was impossible for the farmers to pay 12 per cent interest.

He vigorously assailed the action of these states in charging such an exorbitant rate, and felt that in some way the Federal Government should find a method to enable the farmers to get money at a lower rate of interest.

Another man, recently returned from Dakota, where he had been looking after a large farm property, stated that the entire income—the farm being operated by a tenant—was \$300, while the taxes were \$400; and he had to advance \$100 over the income in order to pay the taxes. He stated that the farmers in that section are in a desperate condition, and that the banks are loaded with the obligations of farmers; and the only reason they are not trying to sell these farms is that there are no buyers. The banks are compelled to let the owners continue in operation, hoping that some day they may get on their feet and be able to pay off their frozen obligations. These, and similar reports from the West, indicate some of the reasons why the agricultural situation out there is rather desperate.

From some parts of the South there are reports almost as unfavorable, and the bank failures, which have been rather numerous, are largely due to the fact that the farmers in those immediate sections have had a very hard time. One letter received in this office a few days ago, referring to crop conditions, states there "have been seven years in this portion of Georgia of bad crops which have wellnigh ruined the farmers in this section," and the writer adds:

"The things we have to buy have the price tacked to them all right, but the things we have to sell get little consideration."

This Georgia situation is due in part to a weather condition for which man can find no remedy. When this whole situation is taken into account, Mr. Hoover and those with him who are trying to find a solution of this problem, will have to face difficulties hard to meet. But outside of weather conditions, which cannot be changed, other conditions must be met and overcome, for we cannot go on indefinitely with agricultural depression such as the country has been facing for some years; indeed, ever since 1920, when the Federal Reserve Board by bankrupting hundreds of thousands of

farmers through drastic deflation, brought on aggregate losses in two years of \$30,000,000,000 in farm values and farm crops, and thus destroyed the prosperity that then existed, resulting in the creation of mortgages and bank indebtedness under which the whole agricultural interests of the country are still laboring. That diabolical deflation campaign will stand out for centuries to come as one of the most terrific economic blunders of which the financial interests of any country were ever guilty.

A LAND COMPANY'S WISE MOVE.

THE Model Land Company of St. Augustine, Fla., a part of the Flagler System, is giving active encouragement to development of the dairy interests in the Hastings section, which is the centre of Florida's great potato growing business. The company is reported as furnishing funds for the purchase of 100 head of thoroughbred cows with the idea that the farmers will on their own account purchase 150 more, thus making a total of 250 for starting a larger development of the dairy business in that section.

SUGGESTIONS AS TO FARM RELIEF.

E. L. FARLEY, Jonesboro, Ark., a merchant in cottonseed and cottonseed products, in the course of a letter to the MANUFACTURERS RECORD, referring to what he regards as the necessity of regulating exchanges in grain and cotton in connection with farm relief legislation, adds:

"I am of the opinion that this is one of the sources through which farm relief can gain. A protective tariff and a loan fund sponsored by the government will unquestionably be beneficial in keeping out foreign competition and holding excess products, but without a stabilized market the two former aids can only be partially helpful. The wide fluctuations now permitted by the exchanges are simply ruining the country cotton merchant who is, and will always be, the intermediary between domestic and foreign consumption. The evil effects, therefore, range from the manufacturer through the farmer. The same principle that applies to cotton, applies to grain."

EAST FLORIDA OUTLOOK IS GOOD.

SUPPLEMENTARY to numerous letters recently published in the MANUFACTURERS RECORD from prominent men in the South in regard to conditions and prospects in this section H. N. Rodenbaugh, vice-president of the Florida East Coast Railway Company, writes:

"The territory with which I am best acquainted is that of the East Coast of Florida. It is my opinion that general commercial and industrial conditions in this territory are better than they were a year ago. I also feel that the outlook for a better tourist season than we had a year ago is good. The indication for a larger production of early vegetables than was the case a year ago is also good, especially in view of the better markets for such agricultural products that now exist.

"From my observation, based on a trip through our territory within the last few weeks, I feel that the outlook for an upward trend in all activities is better than it has been at any time in the last three years. I do not mean to give the impression that the net results of this year's activities will be much superior to what they were in 1928. That was a year, for us, of declining activity. I doubt if there will be any more decline in the present year and am rather hopeful that there will be a slight upward trend."

The Flagler System, he adds, is building a 10-mile extension of the Okeechobee-Miami branch, to provide transportation to a rich early vegetable territory and to help in the development of the land, south and east of Lake Okeechobee, for the sugar cane industry.

Southwest Virginia Industrial Survey.

Wytheville, Va., January 12—[Special.]—An industrial survey now being made of the 19 counties incorporated in Southwestern Virginia's regional chamber of commerce has been worked out through the Extension Service of the state's Polytechnic Institute. Both the extent of the survey and the facilities employed are unusual features. It is believed that no other regional chamber has had its entire territory included in such a survey, and that no other state institution has yet established an industrial survey department in connection with its extension service.

The territory of Southwestern Virginia, Incorporated, is composed for the most part of towns too small to consider employing professional engineering concerns to prepare industrial surveys. Collectively they support a regional chamber whose budget would not permit a large expenditure. Several possibilities of carrying out the survey were found impracticable before the facilities of the Virginia Polytechnic Institute were considered. The institution was found anxious to serve. An Industrial Engineering Extension Division was established by the institute with an industrial survey specialist as its director. The laboratories of the school are being used for chemical analyses of water; the school's printing department is printing the booklet surveys; the civil, electrical and chemical heads of the engineering department are assisting in gathering and compiling statistics. When the surveys of the 19 counties are completed this service will be extended to any town or county in the state on the same basis. The cost to each will be the traveling expenses of the engineers while engaged in gathering data, together with the actual cost charge of the printed pamphlets.

The surveys of the 19 counties are being printed in convenient booklet form separately for each county, in quantities of 6000 for each; 4000 of these will be used by Southwestern Virginia, Incorporated, to supply industrial prospects. The other 2000 of the first print will be given to county boards of supervisors, local chambers of commerce, and other promotional agencies within the county.

Surveys will be so arranged as to permit a separate publication for individual towns so desiring.

The 19 surveys will be gleaned for the strongest facts for a comprehensive booklet to be distributed to the 3000 members of Southwestern Virginia, Incorporated. This booklet will also be used as a forerunner in answering industrial inquiries. Through it, the firm making inquiry can tell whether it is interested in the more detailed county surveys.

It is expected that technical state schools elsewhere will follow the example of Virginia and provide a similar service to their states. This will not conflict with the work of private engineering concerns offering industrial survey service, since it will for the most part supply towns, counties and sections which would otherwise be unable to get their opportunities before the public.

Joint Air and Rail Service.

Passenger service on the regular train-to-plane service bearing passengers and mail from New York to Havana and the West Indies started on January 9, and is offered by the joint efforts of the Atlantic Coast Line Railway Company, the Florida East Coast Railway Company and the Pan-American Airways, Inc., which connects at Miami for points South. Travelers leaving New York at 8:35 in the evening are scheduled to arrive in Havana at 11:30 two days later; by leaving New York at 8:35 on either Sunday, Tuesday or Thursday, one can arrive in San Juan, Porto Rico, the terminus of the service, at 4 p. m., four days later. This about cuts in half the sailing time of steamship service direct from New York. Through fares from New York to any point on the air line are being quoted by ticket agents.

A Great Sugar Enterprise Launched in Florida.

By JOE HUGH REESE, Clewiston, Fla.

Prosaic industrialism and the romance of quest, discovery and conquest are embraced in the story of Bror G. Dahlberg, which reached its climax in the opening of "America's sugar bowl," at Clewiston, in the Everglades of Florida, January 14. Several years ago, Mr. Dahlberg began the search for a structural material to substitute for lumber, which he looked upon as a fast disappearing commodity, his idea being to manufacture cane fiber into building material in such form that its utilitarianism would be evident at a glance and at such a price that it would be purchased in preference to lumber. Not only was it to be a substitute for wood used in building, but it was to become also a competitor.

Three years of travail brought the idea to materialization, and Celotex was the name given the product, which was manufactured from bagasse. At that time, bagasse was waste—the crushed stalk of sugar cane after the juice had been pressed out—and was used only to burn in sugar mill furnaces, more by way of removing it than in consideration of its value as fuel.

Perplexities and disappointments beset the path of Mr. Dahlberg. No sooner had he dealt successfully with the problems of discovering the desired material, evolving a process for its manufacture, devising machinery to accomplish this, creating a demand for the finished product and placing it triumphantly on the market, than he came upon a new and unforeseen obstacle. He had never dreamed that the supply of raw material might fail: The sugar mills of Louisiana were burning hundreds of thousands of tons of bagasse every season, but something happened to the sugar industry in Louisiana. The dreaded mosaic disease attacked and decimated the cane fields and the sugar crop was reduced in such alarming fashion that Mr. Dahlberg foresaw the collapse of

Owning more than 125,000 acres of the rich Florida Everglades muck land along the south shore of Lake Okeechobee, the Southern Sugar Company, the president of which is B. G. Dahlberg of Chicago, directing head of the great Celotex industry, which uses bagasse, the fibre of sugar cane, to manufacture insulation products, has an expansion program which contemplates a chain of sugar mills between Clewiston and Canal Point, totaling 30,000 tons daily grinding capacity. Twelve thousand additional acres are being planted for next fall grinding. An additional mill of 2500-ton daily capacity will be erected in 1929 at Canal Point, where a 600-ton mill already is in operating condition.

his new and thriving industry unless he found a new source of bagasse. Experienced men were sent to Porto Rico to investigate the possibilities of that field and about the same time Mr. Dahlberg's eyes became focused on the Everglades and he began to probe the possibilities of growing sugar there.

The Florida drainage commissioners had been carrying on drainage operations in the Everglades for a score of years, but Lake Okeechobee, the natural reservoir of an immense watershed, was hard to tame. Mr. Dahlberg engaged a firm of reclamation engineers to devise a system by which water control might be established, and in the fall of 1924 he began experimenting with sugar cane in the Clewiston and Canal Point

districts. The plant bureau of the Department of Agriculture had located a sugar cane plant breeding station at Canal Point several years previously, and had made considerable progress in the propagation and selection of species to resist the mosaic disease. The report of the engineers was satisfactory and the cane experiments met the tests; whereupon, Mr. Dahlberg caused the Sugarland and Clewiston drainage districts to be organized, and the task of building water control works by installing pumps, cutting canals and building dikes was started. The practicability of the system of water control which was built in these districts was proved later by severe tests. Thus it is that fundamental essentials to the success of sugar production in the Everglades have been set up and established—the water control system has been found sound and the production of cane and its sugar content are known to be high.

In 1885 the St. Cloud sugar plantation was purchased by R. E. Rose, at that time engineer in charge of Hamilton Disston's drainage operations and at present Florida's State



NEW 1500-TON MILL OF THE SOUTHERN SUGAR COMPANY, NOW IN OPERATION AT CLEWISTON, FLORIDA.

Chemist. In 1881 Mr. Disston, a saw manufacturer of Philadelphia who was in Florida on a hunting trip, became interested in the problem of draining the Everglades, and entered into a contract with the State to drain the lands, and showed his own faith in the project by paying the sum of \$1,000,000 for 4,000,000 acres of inundated land. Mr. Disston brought Captain Rose from Louisiana to have charge of his drainage operations, and coming from a sugar region Rose was quick to see the possibilities of the reclaimed muck for this purpose. By 1885 a large area of land had been reclaimed in the St. Cloud district, and it was in that year



Top—Type of the better sort of dwelling at Clewiston. Center—One year old sugar cane, 16 feet high. Bottom—Laborer's cottage constructed of Celotex.

that Rose made his beginning in the experiment with sugar cane. In 1887 Mr. Disston was so well pleased with the results Captain Rose had achieved that he purchased a half interest in the plantation, and furnished the means to increase the acreage to 1800 and build a sugar mill. The yield averaged 35 tons an acre, the maximum being 60 tons off the oldest and best drained land. The average sucrose content was 14 per cent; the average available sugar content, 8 per cent, or 160 pounds of granulated sugar per ton of cane. The yield was some 5000 pounds of sugar to the acre, superior to any American record of sugar production up to that time. During the time the St. Cloud plantation was operated by Captain Rose, sugar sold at 3.25 to 3.75 cents a pound, and yet the mill was a financial success so long as it was operated on a small scale and by the experienced captain. Eventually, Mr. Disston formed a \$2,000,000 sugar corporation, Captain Rose sold his stock and withdrew, the management of the enterprise fell into other hands and the venture was abandoned, due in part to Mr. Disston's failing health.

There is every reason to believe that average production in the Everglades will be much higher than was shown on the St. Cloud plantation. The muck is deeper and richer, the climatic conditions more favorable, the cane matures quicker, and other factors are more conducive to success.

Mr. Dahlberg has assembled at Clewiston a staff of sugar experts drawn from the most successful sugar factories. P. G. Bishop, the operating vice-president, was vice-president of the Cuba Cane Sugar Corporation, where the annual production averages more than 500,000 tons and which is said to be the largest sugar manufacturing concern in the world. Mr. Bishop has charge of the operations of the Southern Sugar Company in the Everglades, where three centrals of 7500 tons daily capacity are projected. The company owns about 100,000 acres of Everglades land and has other areas under lease. This year the crop will be harvested from 4500 acres only, and the grinding season will be short, as the daily capacity of the mill at Clewiston is 1500 tons, and the supply of cane will be reduced because of the great amount being used for planting 12,000 additional acres.

Planting is going forward at the rate of 150 acres a day, and will be completed by March, but will be resumed in the fall, the 1929-30 plantings being 18,000 acres. This will give a cane area of about 35,000 acres by the grinding season of 1931. Meanwhile, the daily mill capacity will be increased to 5000 tons at Canal Point, and 3500 tons at Clewiston. Already a 600-ton mill has been completed at Canal Point, and a new mill of 2500 tons will be built during the summer of 1929, and ready for the grinding season of 1930. It is proposed to build a Celotex mill at Clewiston, to be ready for operation in connection with the sugar mill at this point by the season of 1930. Mr. Bishop summarizes the advantages of producing sugar in the Everglades as follows:

The growing season is summer, during which the temperatures and precipitation are about the same as in other sugar growing countries. The harvesting season, from December to May, is cool and dry. Everglades muck is easy to cultivate. The tonnage and sugar content are known. Custard apple land, that nearest the lake, will produce 60 tons to the acre; elder land, the next zone, will produce 40 tons to the acre, and raw sawgrass land will produce 25 tons the first year, and more in each succeeding year until the maximum yield is reached. The best type of skilled labor can be had here. The fertility of the soil, the ease of working it and superior facilities for handling the product are, in Mr. Bishop's opinion, outstanding advantages of the Everglades.

Official personnel of the Southern Sugar Co., follows: President, B. G. Dahlberg; assistants, E. C. Cole and T. F. Kearns; operating vice-president, P. G. Bishop; executive vice-president, Jules M. Burgulieres; vice-president, F. E. Bryant; auditor, M. W. Bigg; director of transportation, R. Y. Patterson; mill construction engineer, W. G. Ames; purchasing agent,

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F. L. Williamson; fabrication superintendent, H. E. Fridge; mill superintendent, P. A. Poche; field superintendent, W. C. Hanson; field superintendent, W. P. Jernigan; consulting reclamation engineer, George B. Hills; attorneys, Doggett, Caldwell & Doggett.

The Clewiston Company, which is developing Clewiston townsite, is composed of the following official personnel: President, B. G. Dahlberg; assistants, E. C. Cole and T. F. Kearns; general manager, F. Deane Duff; auditor, M. W. Bigg; superintendent of construction, W. C. Owen; superintendent of utilities, W. D. Cole; superintendent of landscaping and agriculture, C. A. Jackson; superintendent of dredges, Carl Berner; superintendent abstracts and deeds, Paul Deam; superintendent sales, deeds and abstracts, A. E. Anderson; purchasing agent, F. L. Williamson; consulting reclamation engineer, George B. Hills; attorneys, Doggett, Caldwell & Doggett.

The Sugarland drainage district contains 43,000 acres, which has been reclaimed at a cost of \$700,000, or an acre cost of about \$18.50. Clewiston townsite district contains 3500 acres, 2800 of which are included in the plan for the town, which was made by John Nolen, city planner, of Cambridge, Mass., and contains liberal provisions for parks, public grounds, civic and community centers, golf courses and recreation grounds. The state highway from West Palm Beach to Fort Myers runs through the center of Clewiston, and will be completed within the next few months. Outlet to the west and north at this time is over excellent roads. The population of Clewiston is estimated at 2000, practically all having been attracted here during the past three years by the sugar development. The Atlantic Coast Line operates trains into Clewiston from Tampa, and is extending its line to the Miami Canal. Clewiston has filtered water, electric light and power plant, septic tank sewage disposal, many miles of paved sidewalks and hard surfaced streets, two hotels, and many business houses. It is a shipping center for winter vegetables, 650 carloads having been moved from this station during the past season. The town was named in honor of A. C. Clewis, a Tampa banker, who purchased land here and assisted John J. O'Brien in founding the townsite.

There were no contractors in building the mill, which was done under the direction of Mr. Ames, the engineer, and all was administration work. The total number of tractors at work is 75, of which 55 are working in the Clewiston district. They are also using 135 Athey truss wheel cane carts, made by Athey Truss Wheel Co., Chicago; 20 motor cultivators and all field implements that go with this equipment in their planting operations extending from Clewiston to Canal Point. The list of manufacturers who supplied machinery for the Clewiston sugar mill includes:

Electric overhead crane, Box Crane & Hoist Corp., Philadelphia; steel sash, Allison Steel Products Co., Chester, Pa.; mill machinery, Hooven, Owens & Rentschler Co., Hamilton, Ohio; structural steel, McClintic-Marshall Co., New York and Philadelphia; bagasse conveying equipment, Howe Chain Co., Philadelphia; boilers, Babcock & Wilcox Co., Bayonne, N. J.; power plant engines, Hooven, Owens & Rentschler Co., Hamilton, Ohio; generators, Burke Electric Co., Erie, Pa.; switch-board equipment, Westinghouse Electric Co., E. Pittsburgh, Pa.; cane shredder, Jeffrey Mfg. Co., Columbus, O.; juice heaters and evaporating equipment, Kilby Mfg. Co., Cleveland, Ohio; vacuum pans, Baeuerle & Morris, Philadelphia; crystallizers, Kilby Manufacturing Co., Cleveland; centrifugals, American Tool & Machine Co., Boston; sugar scales, Richardson Scale Co., Clifton, N. J.; cane scales, Fairbanks, Morse & Co., Chicago; cane dump, Link Belt Co., Chicago; cane conveying equipment, Howe Chain Co., Philadelphia; motors, Crocker-Wheeler Electric Mfg. Co.; pumps, Allis-Chalmers Mfg. Co., Milwaukee; pumps, Dean Brothers Company, Indianapolis, Ind.; pumps, Worthington Pump & Machinery Corp., New York; pumps, Morris Machine Works, Baldwinville, N. Y.; boiler room blower, American Blower Corp., Detroit; molasses and fuel oil pumps, Kinney Mfg. Co., Boston; tanks, Chattanooga Boiler and Tank Company, Chattanooga, Tenn.; cement, Florida Portland Cement Co., Tampa; juice scales, Richardson Scale Co.; filter presses, T. Shriver & Co., Harrison, N. J.; conduit, wires, cable, etc., General Electric

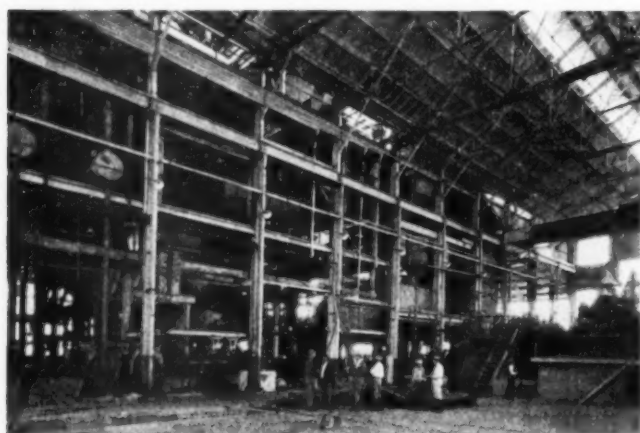
Co., Schenectady, N. Y.; molasses tank, Chicago Bridge & Iron Works, Chicago; molasses scales, Fairbanks, Morse & Co.; bagasse steel work, Tampa Shipbuilding Co., Tampa; vallez press, Joubert & Goslin Machinery and Foundry Co., Birmingham; conveyors, material steel work, Chattanooga Boiler & Tank Co., and Tampa Shipbuilding Co.; steam-fitting, W. K. Mitchell, Philadelphia, and Grinnell Company, Providence, R. I.; conveying machinery, R. L. Latimer, Philadelphia; recording instruments and thermometers, Brown Instrument Co., Philadelphia; tanks, carbonators, steel metal works, stacks, steel for conveyors, Chattanooga Boiler & Tank Co.; carrier chains, Howe Chain Co. now owned by Link



Top—Thousands of acres of rich muck soil like this are planted in sugar cane at Clewiston. Center—Draining the Everglades, an 80-foot canal installed by the Southern Sugar Co. as part of its system of water control. Bottom—Tractors do all the work of land preparation.

Belt Co., Philadelphia; fuel oil meters, Buffalo Meter Company, Buffalo, N. Y.; fuel oil, Gulf Refining Co., Tampa.

The sugar mill is constructed of steel and concrete. The machinery consists of 33 inch by 78 inch crusher, powered by a 22 inch by 42 inch Corliss engine, a 42 inch by 72 inch Searby shredder, driven by a 300 horsepower electric motor, and three roller mills, 34 inch by 78 inch, powered by a 36 inch by 60 inch Corliss engine, all supplemented by a powerful overhead electric crane for use when the machinery needs



INTERIOR OF THE NEW MILL.

repairs or replacing. The sugar factory proper is operated by electric motor driven pumps. Clarification is accomplished by a set of continuous clarifiers, auxiliary settling and decanter tanks and filter presses, and the evaporation of the juices is effected by a quadruple evaporator containing 22,000 square feet of heating surface. The cane is delivered to the mill in standard gauge platform cars 40 feet long, equipped with steel cane racks and side opening gates, the cars being weighed on standard gauge 50-foot Fairbanks track scales and then fixed into a steel side-dumping platform which, when the side gates are opened, tilts the cars to an angle of 30 degrees and dumps the cane onto a heavy conveyor moving in steel troughs mounted in a reinforced concrete pit, which carries the cane up a steep incline equipped with automatic levers and discharges the cane to the mills.

The boiler and electric power plant is installed in separate buildings from the main mill building and consists of four Sterling boilers of 500 horsepower each, equipped for burning either cane fiber or fuel oil, and the electric power is generated by two Burke electric generators of 850 KVA-440 volts, 60 cycles, each driven by two Hamilton Corliss engines. The graining department consists of three vacuum pans of the calendria and coil types, two 10 feet in diameter and one 13 feet. The electric motors operating the factory are principally of Crocker-Wheeler manufacture; for the distribution of current, conduit, cables, switchboards, transformers, etc., much material was furnished by the General Electric Co.

Southern Sugar Co. to Spend \$30,000,000 More in Florida in Five Years.

Miami, Fla., January 14—[Special.]—The Miami Herald of yesterday quotes President Dahlberg as saying that the Southern Sugar Company has spent \$12,000,000 on its Florida development and plans to spend \$30,000,000 more in the next five years. "South Florida can produce ultimately \$200,000,000 to \$300,000,000 of sugar," says Mr. Dahlberg. "Next year we will start a Celotex plant at Clewiston with one unit and we will have there eventually a plant turning out a billion square feet a year." A number of leading Western capitalists including William H. Crocker, president of the Crocker National Bank of San Francisco, are identified with this enterprise and were present at the opening of the Clewiston sugar mill.

\$14,000,000 INDUSTRIAL AND RESORT DEVELOPMENT UNDER WAY.

Work to Start Soon at Calhoun Falls, S. C.—Big Program Announced.

Calhoun Falls, S. C.—Contracts in connection with the development of a new industrial city project here and the construction of a year-round resort at Calhoun Falls, Ga., across the Savannah River from this point, have been awarded and work is expected to be started at once. The undertaking will involve an estimated expenditure of \$14,000,000. General contract for clearing, grading sidewalks, installing sewers and water distribution facilities and the construction of pavements was awarded to the Winterbottom-Connelly Co., Cleveland, Ohio, and A. L. Connelly will have personal charge of the big development. Equipment and personnel for the project will be assembled here and will include the most modern machinery, such as plowing tractors, grading machines, trenching machines, concrete mixers and probably steam shovels and locomotives. About 50,000 carloads of cement will be required for the work.

A complete survey has been made of the properties to be improved, which include 20 square miles of the Calhoun estate in Abbeville and McCormick counties, South Carolina, and Elbert County, Georgia, some of the estate, especially along the banks of the Savannah River being heavily timbered in pine and cedar. Interests connected with the Duke Power Company, Charlotte, recently obtained permission from the Calhoun family to open up some of the lands to possible power development, and as a consequence a syndicate headed by New York, St. Louis and Cleveland capitalists purchased the remaining lands after the power interests had absorbed all property lying below the 420-foot contour. Calhoun Falls, Inc., with the main office in New York, was chartered to carry out the task of translating into factories and homes the vision of the promoters.

The power project will create an artificial lake affording 25 miles of water frontage on the properties of Calhoun Falls, Inc., and this unusual condition, it is said, is the foundation on which the industrial city and resort are planned. Calhoun Highway, a military road connecting the Eastern seaboard with the South and West, runs through the heart of the estate, and South Carolina and Georgia, with Government aid, recently erected a bridge to carry the highway across the Savannah River and to serve as a memorial to the Soldier Dead of the World War. William H. Evers, of Cleveland, is chief engineer for the project.

Outlining plans for the prosecution of the work, Mr. Connelly states that activities will be started at once and that within ten days he will have at least 75 men engaged. The installation of water and the construction of pavements will proceed simultaneously after a certain stage of construction has been reached, and 200 men employed. All equipment practically will be new and local labor will be employed. An assembly plant and office will be located about a mile and a half from Calhoun Falls, on the north side of Calhoun Highway, where work is to start, but there will be no camps or barracks or commissary, in deference to the business element in surrounding cities. While the original plans call for drawing water from the Rocky River, the company plans to bring in artesian wells, which, if successful, will reduce the installation of heavy pipe lines and will eliminate the necessity of mud traps, filters and other facilities where water is required for steam purposes.

Edwin H. Gerstacker is the field engineer in charge, with Charles E. Evers as office engineer.

Bids will be received until January 23 by the City Commissioners, Wilmington, N. C., for the purchase of \$250,500 public improvement bonds.

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The Approach to American Solidarity.

By LEON J. CANOVA, Washington, D. C.

The initiative of President-elect Hoover in utilizing the pre-inauguration time in getting a close-up of the Latin American situation, may be interpreted in two ways. First, the President-elect, having a thoroughly well-founded knowledge of the position of Latin America in the American family of nations, and of the importance of a sincere friendship among us, wished to show his appreciation of our neighbors by making them a personal visit. This act of friendly courtesy on his part helps more perfectly to fit him for the important office he is shortly to assume, and at the same time gives him an understanding of the delicate problems in our relations with these charming people, which no President of the United States has ever before enjoyed.

The second interpretation goes farther, reaching into the great development of Latin America, which is assured of wonderful fulfillment in the next few years. The Latin American question accordingly becomes of major importance.

American Unity Needful.

In fact, it is high time that we pay closer attention to the cementing of an all-American policy, to create good will on a permanent, solid basis with our neighbors, instead of practically ignoring them, while chasing the will-o-the-wisp of European consideration.

Had we shown the Latin American countries one-tenth part of the consideration and attention we have given the European nations during the past 20 years, there would today exist an American unity which would be an absolute insurance against any European or Asiatic aggression. While we may not even suspect such an eventuality, the breaks in the policies of nations generally occur with astounding suddenness, and appalling damage can be done the nation which has not watched its step and is unprepared.

It would be folly to ignore the dangers which the future may hold in store for us, and we can best insure our footing by drawing closer our ties with the entire family of the American republics, and thus make their and our own strategic position assailable only at the greatest peril to the assailant. This unity will give pause to any plan of aggression against any of the Americas.

Were it not for the influence of these United States, not one of our smaller neighbors would be secure from foreign aggression. Without it being apparent, their peril has increased considerably during the few years since our restriction of immigration went into effect, and will become more serious as foreign immigration, denied admittance into this country, will pour into their fertile lands.

The economic conditions of Europe must necessarily drive the people to shores where the cost of living is cheaper, the taxes less, and the possibilities of profit and advancement are manifestly greater. Most of these immigrants may be conscientious workers, orderly in every respect, but it is difficult especially at this time to exclude the small poisonous element,

Leon J. Canova has had an intimate connection with the Latin American people since 1894, living among them in their own countries for many years. In 1914 he was sent to Mexico as a special representative of the Department of State. Upon his return he was named assistant chief of the Division of Latin American affairs, and almost immediately placed in charge of that division. When the Division of Mexican Affairs was created, on July 15, 1915, Mr. Canova was named its chief, and he is considered to be an authority on Latin America.—Editor MANUFACTURERS RECORD.

which will surely make trouble. It is easy for such a contingent to cause international friction. In such case any one of our small neighbors, no matter how brave or how strong in their rights, might be crushed by the strength of a foreign power, were it not for the respect this country inspires and the knowledge of what our attitude would be in such an extremity.

It is, therefore, important that each one of the American nations take serious counsel with itself and consider the possible contingencies which may momentarily arise from European fermentation, active even at this time, and not gauge their policies by the ostensible pacific conditions of today, but so temper them that they will stand the acid test in the hour of national peril. This is an essential phase of national life, of political strategy, which all American diplomats and statesmen should give careful study.

This is a statement of fact, not a spasm of "Jingoism". We should realize, no matter how sincere may be their resounding protestations of good will, that the nerves of the European nations have been, and are under such a severe strain, that they may at any moment be again at each other's throats. In such an event the firebrands may be far flung, and no nation, particularly a weak one, will be immune from danger or at least from disagreeable reaction. A closer, sincerer friendship between all the Americas is highly desirable and will be of manifest advantage to every one of them.

How to Improve Commerce With Latin America.

For the past two years it has been the consensus of opinion among those who are familiar with the situation, that Latin America was about to enter into a new era of prosperity and development, and in keeping with that general forecast the commerce between the American countries will step livelier now than it ever has before. Capital from these United States will flow more freely into the development of the amazing resources of our southern neighbors. Scarcely any of the Latin American republics have been scratched as regards the development of their manifold opportunities and advancement.

A codification of the most essential features of the laws governing business could be taken up with great mutual advantage. The adoption of a standard set of business laws, if such a thing is possible—and it appears feasible—would be a wonderful aid to the easy transaction of business between our countries. Pleasant business association means better social relations, and both are potent factors in building up communal respect and happiness.

The business men of the United States are considered by many of us as the last word in intelligent efficiency. But much business which began under favorable auspices has been ruined by the tactless representatives sent out by some of our concerns. Not only is that particular business ruined, but it puts the people of our country in bad, because those blun-

dering individuals are accepted as being representatives of us as a whole.

To the south lies a wonderful field for trade. The European trade seeker carefully studies the likes, dislikes and customs of prospective customers. They pay great attention to the details of all package goods and make them up in a fashion they know will appeal to the local buyers. In other words they popularize their goods before they reach the selling territory and not through the long drawn out, expensive and often unsuccessful methods, which many of our people have practiced.

The packing of crates and boxes, and the study of the classifications of the import duties are two vital elements. Instances have been known where goods were ordered packed in cases of a certain size, or of a specific weight, so that transportation on mule back to a remote destination in the mountainous regions, would be easy; yet when the goods arrived at the seaport it was found the shippers had packed them as if they were shipping to a nearby point for trucking over a flat country to the final destination. In some instances of this kind the consignees have refused to receive the shipment; in others they have had to unpack and repack in smaller packages before the goods could be moved. Such instances do not tend to whet the desire of the Latins to trade with us.

The customs classification is to most people very complex. Sometimes even expert customs brokers cannot analyze them. The shipper to Latin America should study carefully the customs tariffs of those countries to which goods are to be consigned. The wording of the invoice may build or ruin prospective trade. For instance, the writer once engaged in planting the first large orange grove in Cuba and ordered a mower from a firm in the States. He instructed the shipper to bill it as an agricultural implement, explaining that as such it would be admitted free of duty. This was done and the ship-

ment came through without any trouble. Within two months another mower was ordered from the same firm and they billed it as a mowing machine. It was classed as machinery and was subject to duty. The previous invoice was shown and it was explained that the mowers were identical, but the officials were adamant and the duty had to be paid. Technically they were probably right; the shipper had made a blunder in using the word "machine."

Often the invoices are not made out with proper care and therefore the consignee in making out his declaration cannot do so intelligently. For instance, where several constituents enter into the make-up of an article, the weight of each constituent should be specified, as the duty may then be divided fairly; otherwise, duty on the whole will be charged under the highest classification. The net weight of the goods in each crate or box should be stated, also the gross weight, in kilos or kilograms. Rightfully the duty should only be assessed on the goods in the container, but if the net weight is not given, if the duty is assessed by weight, it will be charged on the gross weight.

Innumerable instances could be mentioned where a knowledge of the operation of the customs classification on the part of the shippers would have saved the consignees much inconvenience and money, and would also have assured the shippers of continued business instead of a complete severance of connections.

It is, therefore, evidently a matter of necessity that the manufacturer and merchant in the United States qualify themselves for Latin American trade by a study of that trade as indicated, by knowledge of the customs tariff, and by using whenever possible as their representatives, those who know the Latin American character or can meet on equal ground people who are accustomed to courtesy, and consideration, and where, with these traits, patience and tact are quite as necessary.

Florida Seeks Inland and Coastal Waterways.

Leesburg, Fla., January 12—[Special].—That provision for a complete system of inland and coastal waterways serving the State may be one of the most forward steps in Florida has been forecast by formation here of the Florida Inland and Coastal Waterways Association, with A. F. Knotts of Yankeetown, as president; George W. Parkhill of Jacksonville, vice-president; Dr. J. H. Therrell of Ocala, treasurer; Jefferson Thomas of Leesburg, secretary, and W. J. Howey, Howey-in-the-Hills; F. M. Sacks, Tampa; S. S. Sadler, Tangerine; Joe H. Scales, Perry, and George R. Sims, New Port Richey, as additional directors-at-large. The conference perfecting the organization was participated in by 114 chamber of commerce delegates and representative citizens, from 31 towns in 15 counties, mostly in the central portion of the state.

The purpose of the body is "to promote and advance the construction of a waterway or waterways across, and along the coasts of, the State of Florida, and feeders or laterals connecting therewith, following such routes as expediency and traffic needs may justify."

Colonel Gilbert A. Youngberg of Jacksonville, former United States district engineer and now associated with the firm of Hills, Youngberg & Luce, mentioned the competition by motor trucks which now must be met by railroads and water freight carriers, alike. Also, he thought that a cross-state canal would attract many owners of pleasure boats to the interior and that this feature alone would bring a large amount of revenue to Florida.

A resolution inviting President-elect Hoover to visit the inland water areas of central Florida was proposed by committee made up of D. C. Sherman, chairman; Karl Lehmann,

Orlando, and F. M. Sacks, Tampa. Mr. Howey, Mr. Knotts, Mr. Callaway, Hon. H. C. Bishop, Eustis, and Hon. W. R. O'Neal, Orlando, were appointed to extend the invitation and also to appear before rivers and harbors committee.

Fertilizer Trade Practice Conference.

Complying with a request of the National Fertilizer Association for a trade-practice conference for the fertilizer industry, the Federal Trade Commission has set January 29 as the date, it is announced by Charles J. Brand, executive secretary and treasurer of the association. The conference is to be held in Washington.

Mr. Brand states that at a convention held in Atlanta November 13 and 14, 1928, all the firms present which are signatories to the Industry's Code of Trade Practices voted unanimously to reaffirm their allegiance to the code and instructed the executive secretary to request the Commission to sponsor such a conference. Since the convention other signatory firms have added their approval, bringing the total to nearly 200, representing 80 per cent of the tonnage of fertilizer sold annually. Only one negative vote has been cast.

\$5,000,000 Expenditure by St. Louis Southwestern.

Tyler, Tex.—More than \$5,000,000 will be expended this year, it is said, by the St. Louis-Southwestern Railway Co. in its rehabilitation program, which will include laying heavy steel, reballasting and the construction of new yards. The railroad expended more than \$2,000,000 last year for rebuilding its right-of-way between Tyler and Mount Pleasant.

Knoxville Area to Spend \$50,000,000 in Improvements This Year.

By HARRY M. WATSON, Knoxville Chamber of Commerce.

Large sums of money will be expended in Knoxville and upper east Tennessee during 1929 for projects involving public improvements and industrial expansion. In Knoxville, a city of 140,000 people, projects have been started or announced that will cost more than \$10,000,000, including new river bridges, sewer extensions, street widening and paving, office buildings and garages, school buildings and industrial construction of various kinds. For the adjacent territory, plans have been made for projects which will cost more than \$30,000,000, and other development plans probably will bring the total expenditure in 1929 to more than \$50,000,000.

Knoxville enjoyed considerable industrial expansion last year. Four major projects were the opening of the \$2,000,000 Volunteer Portland Cement plant, the location of a branch factory by the Sterling Wood Products Corporation, the purchase of a 260-acre site as a possible location for a large rayon plant by the American Enka Corporation, and the purchase of a site by the Chevrolet Motor Company for a warehouse to distribute parts over the Southeast.

Under the plans for 1929, sewer extensions will cost \$2,000,000, nearly \$1,000,000 worth of which have already been contracted for; the Henley street river bridge will cost \$1,000,000, and the widening of Henley street to 100 feet will represent an outlay of approximately \$500,000. A new city jail costing \$100,000 will be erected; the North Broadway viaduct, now nearing completion, will represent an expenditure of \$70,000, and an auditorium to be erected jointly by the city, county and University of Tennessee has been proposed, to cost about \$600,000. The project has been approved by the city and university authorities and will get the consideration of the county court at the April session.

The new Church Street Methodist Church will cost \$750,000, and funds have been raised for a new \$500,000 Y. M. C. A. building, also for the first unit of St. Mary's Hospital, to cost \$300,000. A Medical Arts building will be erected at a cost of \$500,000, the James White office building and garage will add another \$500,000 and the addition of two stories to the Holston National Bank building will cost \$100,000. The remodeling of the old William J. Oliver Manufacturing Company plant as the home for the Sterling Wood Products Corporation, makers of wooden parts for automobile bodies, under contract to the Briggs Manufacturing Company, will cost \$500,000. B. H. Sprankle has announced plans for a 15-story building, the cost not yet estimated, and he also plans to build a three-story ramp garage in the rear of his five-story office. Pryor Brown will build a four-story ramp garage, costing \$150,000.

The University of Tennessee campus at Knoxville will be the scene of considerable construction during 1929. A new library building will cost \$200,000 and plans are being drawn for a new administration building. A chemistry building and a physics and geology building, now nearing completion, will cost \$350,000. The addition of 10,000 seats to the stadium on the athletic field will cost \$60,000. A new state bridge across the Tennessee River at Knoxville will cost in the neighborhood of \$750,000, and the unification of the two telephone systems and the installation of the dial system will represent a large part of the \$1,492,000 which the Southern Bell Telephone Company will spend in the city. A. N. Shearman has repurchased 11 large concrete pipe manufacturing plants which he sold three years ago, one of the plants and the headquarters of the operating company being located in Knoxville, and plans are being made for the erection of three additional plants. A \$100,000 merger of two overall

factories and one shirt factory has been consummated, the firms interested being the Regal Manufacturing Company, the Reliance Overall Factory and the Resolute Shirt Company, all of Knoxville. The Tennessee Mill and Mine Supply Company will build a \$50,000 two-story addition to its present building; the Bowman Hat Company will double its production of caps to 200 dozen a day, and the Oliver King Sand and Lime Company will increase its production between 25 and 50 per cent. New machinery at the Cockrum Lumber Company will enable that plant to increase its production 25 per cent. The new program of the Knoxville Gas Company calls for extensions involving an expenditure of \$123,000. The Chevrolet Motor Company's warehouse will cost in the neighborhood of \$100,000.

Outstanding among the developments in the surrounding territory will be the expansion of two large rayon plants in Happy Valley, between Johnson City and Elizabethton, the expenditures by the Glanzstoff and Bemberg Corporations to exceed \$10,000,000, while the Meade Paper Company will build a plant costing \$1,000,000 at Harriman. The Kingsport Silk Mill at Kingsport will be completed in 1929, and the Aluminum Company of America, at Alcoa, will enlarge several of its units, while one of its power dams will be completed this year. Work on the first unit of the \$1,000,000 General Carter Hotel at Elizabethton will start early in the year.

Johnson City has a program of improvements involving about \$5,000,000 and including a project through which it will gain a new water supply.

In other East Tennessee cities, 1929 will witness the expenditure of large sums for municipal improvements and industrial expansion, and while this development is taking place the State and the counties will be spending additional money for construction and improvement of highways and the erection of bridges.

\$15,000,000 Hydro-Electric Project in Tennessee to Include Three Dams.

Nashville, Tenn.—The Holston River Power Co., New York, has applied to the Public Utilities Commission for a certificate of convenience and necessity to build three hydro-power dams on the Holston River. One would be located about six miles above Kingsport, to have a height of 79 feet, while a second would be built immediately below the confluence of the South Fork and Watauga rivers, to a height of 135 feet, and a third just above Bluff City on South Fork, to a height of 130 feet. The Kingsport dam would provide for the generation of 24,000 horsepower; the second dam, 30,000 horsepower, and the Bluff City dam, 20,000 horsepower. The cost of the project is estimated at \$15,000,000.

\$39,631,966 Building Permits in Houston District.

Houston, Tex.—The valuation of building construction for which permits were issued in the Houston metropolitan district during 1929 reached a total of \$39,631,966, according to the Houston Chamber of Commerce. Permits were issued in the city for construction to cost \$35,319,501, which leads the record of 1925 by approximately \$280,000 and figures of 1927 by approximately \$8,000,000. In December permits were issued in the city to a total of \$3,348,211 and in the Houston metropolitan district to \$4,265,517.

\$18,187,000 in Oklahoma City Building for 1928.

BELIEVE 1929 WILL SHOW ANOTHER BIG INCREASE IN NEW CONSTRUCTION.

[Special Correspondence Manufacturers Record.]

Oklahoma City, Okla., January 11.

In the past year, Oklahoma City established a new high record in building activity with a total of \$18,187,000 in building permits for new homes, apartment houses and business buildings. Also, 1928 was the first year in the history of the city to show a total of more than \$1,000,000 in new buildings for each month. Permits in 1927 were \$16,238,714; in 1926, \$10,024,228; prior to 1926 Oklahoma City's greatest building year had not exceeded \$8,000,000. Building development as it has gone forward has not been in the nature of a boom; construction has been a gradual response to the need of the community.

Ever closer circling oil development has placed Oklahoma City near the center of the Mid-Continent field and lately has brought producing tests to its doorstep. Only recently a large well was brought in about six miles south of the city. These developments together with the expanding trade territory made possible by westward extension of good roads and increasing use of the varied mineral and agricultural resources of the state have contributed to the steady growth of the city.

Two new railway stations and terminals will cost about \$9,000,000 and civic improvements totaling \$5,000,000 will swell the 1929 total. Extensive water conduit, sewer and paving projects are under way and will be completed during the year.

A twenty-four story, \$4,000,000 hotel is expected to be built in the near future, according to C. F. Colcord, president of the board of directors. A \$40,000,000 exclusive country estate and country club addition is being developed by the G. A. Nichols, Inc. John Harden, Inc., plans at least one

\$2,500,000 residential addition. The Rancho Beach and Country Club will ask bids on its buildings soon, according to Joe I. Davis, architect.

Plans are about ready for bids on an 8-story and basement office building to be erected by C. F. Meadors, local capitalist. The building will be 52.6 by 125 feet, of reinforced concrete construction, with concrete joist and foundation, cement, rubber tile and ceramic tile floors and tar and gravel roof. Thomas L. Sorey is the architect.

Work on a \$750,000 federal building addition is expected to start early in the spring. The building has been included in a bill of authorization.

Factory buildings are to be built for the V. V. Campbell Extract Company, the Harrison Smith Battery Company and the Prest-O-Lite Company, construction to start early this year. Sears, Roebuck & Company have leased the 6-story Grain Exchange building, which will be remodeled into a retail store.

Skirvin Hotel has announced its plans for a 2-story addition at a cost of \$250,000. This will make the Skirvin a 14-story structure. The Huckins Hotel spent \$100,000 on a one-story addition to an annex building during the year. The Wells-Roberts 10-story hotel was recently completed at a cost of \$400,000.

To meet the present needs and prepare for future development of Oklahoma City, the utility companies have had under way a big expansion program. The Southwestern Bell Telephone Company is completing its new 16-story office and plant building at a cost of \$1,500,000; the company will retain its present 7-story structure. The Oklahoma Gas and Electric Company completed a \$1,000,000 office building for its exclu-



A RECENT AIR VIEW OF OKLAHOMA CITY.



UNIVERSITY OF OKLAHOMA MEDICAL SCHOOL BUILDING.

sive use. At its power plant the company increased capacity from 47,000 horsepower to 81,000 horsepower by new equipment, at the same time providing plant building extensions. The Oklahoma Railway Company, operating the street railway, pulled out of a receivership, spent \$500,000 on shop and terminal improvements and will spend another half million on improvements this year.

More than \$1,000,000 has been added to the city's hospital facilities in the past year. A \$300,000 building for the University of Oklahoma School of Medicine is finished and in use. The crippled children's hospital has been completed by the state, and a \$100,000 governor's mansion has been completed.

Oklahoma City University has under construction a new fine arts building. One \$175,000 church has been completed; another \$100,000 edifice is under construction by C. G. Beveridge, contractor for the Unitarian congregation. Five other churches have plans under way for new buildings or for educational building additions. One suburban theater has been completed and two more are under construction.

Public school buildings under way and completed represent an investment of \$1,700,000 in the city's school buildings during the year. The new public market was constructed at a cost of \$500,000.

The Commerce Exchange building, the new 10-story home of the Chamber of Commerce and the Builders' Exchange, has been completed. Despite the large number of office buildings recently constructed the available space is barely keeping ahead of demand. Three office buildings now have three, four and five story additions respectively, under construction.

A new union bus station serves the network of buses radiating from this center to all parts of the state. One 14-plane hangar and another 8-plane hangar have been constructed at the municipal air field.

Other factory and industrial buildings completed include a \$400,000 wholesale bakery plant; street railway shops; two

printing plants; Sheffield Steel Company warehouse, the first unit of their plant here; Long-Bell lumber yards and mill shop; completion of a new shop building for one machine tool firm doing oil field work, and starting of a large warehouse for the Sherman Machine and Iron Works in the same line. Industrial and factory buildings under construction include: Smith Baking Company plant, \$400,000; Algonite Stone Company; Linde Air Products; Burdett Oxygen Company, and other smaller units.

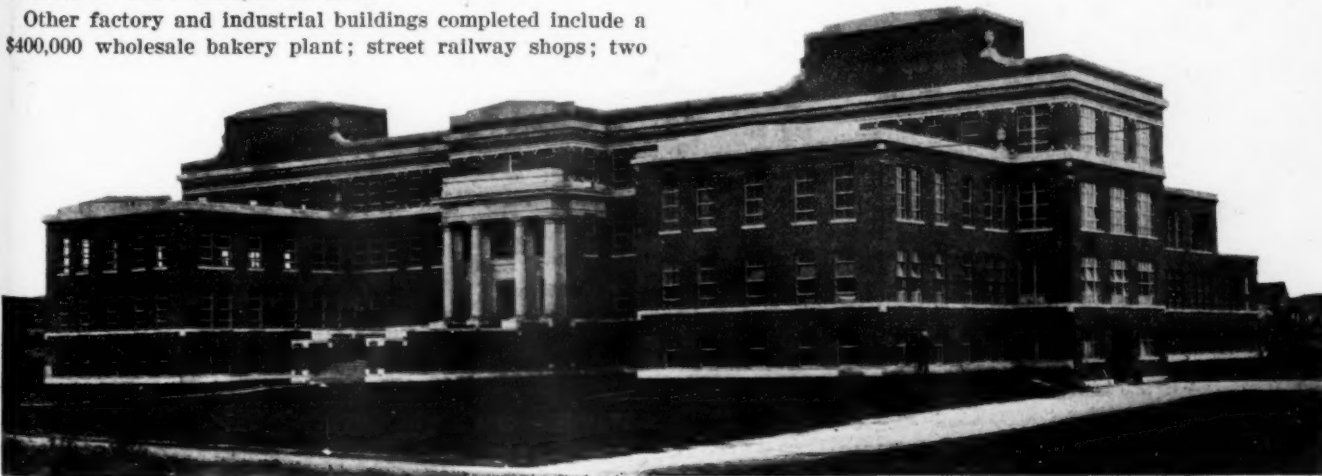
Two of the city's radio stations, WKY and KFJF have



NEW \$1,500,000 OFFICE AND PLANT BUILDING OF SOUTHWESTERN BELL TELEPHONE CO.

completed new plant and studio quarters during the year; WKY has installed complete new equipment for a modern 1000-watt station.

Apartment building, suburban-center business building and residence building have gone forward rapidly, but have only kept up with the demand.



HOSPITAL FOR CRIPPLED CHILDREN, OKLAHOMA CITY.

Salt Deposits and Production of the Southwest and Virginia.

THE MINERAL EXTENSIVELY USED IN THE CHEMICAL INDUSTRY.

By RICHARD WOODS EDMONDS.

Ask the first dozen people you meet what salt is good for, and see what they will tell you. Immediately they will mention its use in flavoring foods; some will say it is necessary to life; and a few will remember that it is largely used in preserving foods, including meats and fish. A few, likewise, will think of various medicinal uses, and if any of them are facetiously inclined, they will remind you of its value in killing snails and catching birds. But unless you happen to be in the neighborhood of a salt mine or salt well, probably not more than one or two of the dozen you ask will tell you that salt—the same old salt we use to flavor our food, preserve our meats and fish, freeze ice cream, gargle our sore throats, catch birds and kill snails—is used to the extent of a few million tons annually as the basic raw material of many large and important chemical industries.

Chemical and Metallurgical Engineering estimates that in 1926 the chemical industries consumed nearly 3,000,000 tons of salt, or about 40 per cent of the 7,322,430 tons consumed during that year. This figure was divided roughly as follows: Heavy chemicals, 2,500,000 tons; fine chemicals, 10,000 tons; coal tar products, 300,000 tons; electro-chemicals, 175,000 tons.

For industrial uses other than by the chemical industry, the same publication estimated the following consumption:

Leather, 100,000 tons; textiles, 40,000 tons; fertilizer, 5000 tons; paper, 50,000 tons; soap, 100,000 tons; food products, 1,500,000 tons; vegetable oils, 10,000 tons; glass and ceramics, 50,000 tons. Total, 1,855,000 tons.

It will be noticed that while these are not classed as chemical industries, they are industries that employ salt in chemical processes to a greater or less degree.

Of the uses for salt in the chemical industry, the largest single use is given as 1,890,000 tons for soda ash, while caustic soda comes second with a consumption of 120,000 tons.

Other important factors besides the availability of salt must be considered in appraising the suitability of any given locality for the manufacture of chemicals from salt, but we need not go into those factors here. This article will deal with the deposits and the methods of producing salt in the South and will outline some of the chemical industries in which the output is now being consumed. In that section salt occurs in quantities that defy computation, and in many localities, very near the surface and in extremely pure form.

Beginning in western Texas there is a single salt basin 300 miles wide that extends in a northeasterly direction for 700 miles. From western Texas it cuts across southeastern New Mexico, crosses that northern tip of Texas known as the Panhandle, and then crosses western Oklahoma into Kansas. The deposits within the 300 by 700-mile basin vary from 100 to 700 feet in thickness, and play out to a lesser thickness around the edges of the basin. The deposits are struck at depths below the surface of from 250 to 800 feet as a rule,



SEVERAL HUNDRED FEET UNDERGROUND IN A FORMATION OF PURE ROCK SALT OF A GULF COAST SALT DOME.

while one well recorded a depth of 1550 feet before salt was found. Literally thousands of wells drilled for oil have brought up saturated solutions of salt water, and in Oklahoma state laws have required the capping of wells flowing brine. However, many wells that had been abandoned before the law was enacted are still flowing salt water, as they have been doing for years, while wells that produce both oil and



LOUVRE HOUSE AND CONCENTRATION TANK AS USED BY THE MARTIN PROCESS FOR EXTRACTING SALT AND OTHER CHEMICALS FROM OKLAHOMA BRINE.

salt water are permitted to flow, the oil being recovered and the brine allowed to run into the streams.

In both western and eastern Oklahoma there occur numerous deposits in a form known as salt plains, probably surface deposits left by the drying up of salt lakes. Springs rising through these deposits issue as saturated brines, and give rise to salt streams that pollute the fresh-water streams into which they flow. Somebody estimated, or guessed, that 100 carloads of salt go to waste every day in these streams. This figure is not quoted as authentic, but merely to indicate roughly the magnitude of the supply available for the taking.

In all Oklahoma, so far as can be learned, there is only one plant utilizing either salt or brine as a raw material, the plant of the Martin Process Company at Sand Springs, near Tulsa. Besides the sodium chloride, or common table salt, the brine used by that company contains calcium chloride, ammonium chloride, magnesium chloride, iron oxide, bromine and iodine. The extraction of these chemicals and their conversion into a hundred or more industrial chemicals can scarcely be called an industry based on salt alone; yet it is one closely allied to a salt industry.

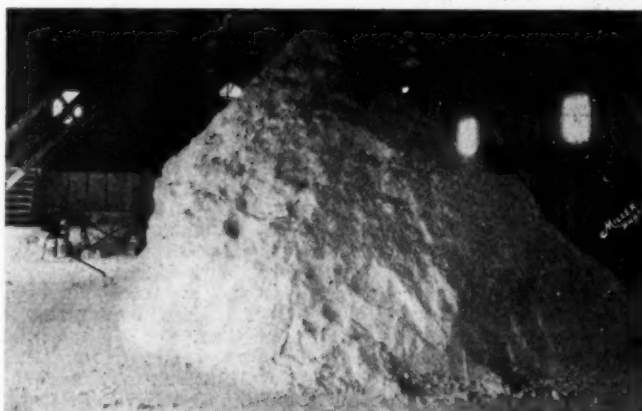
Along the Gulf coast of Texas and Louisiana occur "salt domes" similar in formation to the sulphur domes of the same region. In these domes the salt occurs in the form of enormous plugs—a mile, sometimes two miles in diameter, and with a depth of several thousand feet. The method of their formation is curious and puzzling. Apparently, in early geologic ages, salt was deposited in vast caverns, and by some unknown subterranean force of gigantic proportions these salt masses were thrust upward and were driven violently through rock strata. The mounds over them now are eroded to within 75 or 150 feet of the level of the marshes surrounding them. A publication of the Department of Agriculture of Louisiana likens these salt masses to subterranean mountain peaks, a graphic description. That publication states that Louisiana has three of the greatest salt mines in the world, mines that have produced more than 5,000,000 tons of salt, and have a reserve of ten thousand times that quantity on which to draw during the coming centuries.

The Myles Salt Company has been operating in one of these domes for 25 years. During all this time it has worked on only one level, the depth being 600 feet. It has shipped out 3,000,000 tons of salt. The company reports that the proven deposit is one and one-half miles in diameter and of unknown

depth, and the quantity is so vast that there is no practical benefit in trying to estimate its further extent.

The method of mining is interesting. Solid salt is reached at a depth of 100 feet. A shaft goes straight down for a depth of 600 feet, and from its foot drifts, or tunnels, are laid out like city streets. The solid pillars of salt left standing between the excavations support the roof without scaffolding. At intervals on each drift, large rooms are carved in the solid salt. As the roof is cut and blasted away the material accumulates on the floor, and the miners work up against the mounting ceiling from the top of the mounting heap on the floor. In this way the room is carved out to a height of 70 feet and a diameter of 65 to 70 feet. When the excavating is completed an electric shovel loads the loose salt onto electric trains, which haul it to the crusher at the bottom of the shaft. A roof of solid salt from 400 to 500 feet thick is left over every room. The entire mine is lighted by electricity.

The salt of this deposit has analyzed as high as 99.86 per cent pure. Crushed without refining, it satisfies the requirements of the pure food laws as to table salt. Besides this purpose it is used in dye and chemical plants, in freezing, pickling, meat curing and, more recently, for the manufacture of chemicals at the plants. This branch of the business produces hydrochloric acid, sodium sulphate (salt cake) and phosphate fertilizers. The early addition of other chemicals is contemplated. The Jefferson Island Salt Mining Company, working in a similar deposit, instead of making rooms connected by tunnels simply excavates tunnels 100 feet high, 60 to 70 feet wide and from 1000 to 2000 feet long. As in the



A PILE OF SALT READY TO BE PUT UP INTO PACKAGES OF DIFFERENT SIZES FOR FINAL CONSUMPTION.

Myles Salt Company's mine, no timbers are necessary to support the walls and roofs of these great caverns. The third mine operating in a Louisiana salt dome is the Avery.

Besides the three salt mines, Louisiana has a salt well, the brine from which is evaporated to secure the salt. The development of the salt deposits of the state has been increasing rapidly during the past six or eight years, the output during that interval having increased from 200,000 to 600,000 tons annually. The start already made in the manufacture of chemicals at the mines is an indication of the large future growth of the chemical industry to which the state is entitled and which it may reasonably expect.

In Virginia only one company, the Mathieson Alkali Works, Inc., reported the production of salt in 1927. This producer uses salt brines from wells as a raw material in the manufacture of soda ash, caustic soda, liquid chlorine, bleaching powder, chlorine products, bicarbonate of soda and other chemicals.

Both brine and rock salt occur in Virginia, and during the Civil War the deposit at Saltville, where the wells of the Mathieson Alkali Works are located, was the main source of salt for the Confederacy.

Ceramic Exposition to Be Held in Chicago the Week of February 4.

Technical, artistic, business and other phases of the ceramic industry will be discussed at the convention of the American Ceramic Society, Hotel Stevens, Chicago, February 4-7. An elaborate ceramic exposition will be an outstanding feature and many prominent concerns have arranged to contribute exhibits.

By no means the least interesting feature will be the disclosure of secrets discovered by modern experts who have solved problems that had baffled investigators for a score of centuries. "The world has wondered how the marvelous blue and opaque Cornelian glass of Egypt was made, and has tried in vain to reproduce it," as D. F. Albery of Chicago, arranging the exposition, explained it. "For more than 1000 years, scientists have been trying in vain to duplicate the colors of the famous Peachblow Vase. For many centuries, Western civilization has been endeavoring to attain again the everlasting colors of Chinese and Egyptian mosaics and enamels which, undimmed, have defied the ravages of heat and cold, drought and rain, to this very day.

"Now we are confident we have the secret. We have achieved acid-proof enamels, sought since the dawn of civilization. We have new opaque enamels and glazes, equal to any ever made by the ancients. We have colors to match the treasures dug from ancient tombs. It is fitting that the public should get its first view of these at the first great ceramic exposition ever held in the United States."

Eleven divisions, including Art, Enamel, Glass, Heavy Clay Products, Terra Cotta, White Wares, Refractories, etc., will participate in the proceedings, each with a comprehensive program of papers and discussions. Also, reports will be presented during the week and joint meetings with other associations will be held.

In a partial list of signed exhibitors and reservations for the American Ceramic Exposition, Finished Products section, appear the following names:

Benjamin Electric Co., Chicago; Cambridge Glass Co., Cambridge, Ohio; Carr-Lowry Glass Co., Baltimore; Champion Porcelain Co., Detroit; Chicago Brick Exchange, Common Brick Manufacturers Association, Chicago; Columbia Enameling & Stamping Co., Terre Haute, Ind.; Coonley Manufacturing Company, Chicago; Fostoria Glass Co., Moundsville, W. Va.; Haeger Potteries, Inc., Dundee, Ill.; Hazel-Atlas Glass Co., Wheeling, W. Va.; Hollow Building Tile Association, Inc., Chicago; Homer Laughlin China Co., Newell, W. Va.; Lenox, Inc., Trenton, N. J.; Ludowici-Celadon Co., Chicago; D. E. McNicol Pottery Co., Clarksburg, W. Va.; Midland Terra Cotta Co., Chicago; Mosaic Tile Co., Zanesville, Ohio; Northwestern Terra Cotta Co., Chicago; Porcelain Tile Co., Chicago; Scammell China Co., Trenton; Sebring Pottery Co., Sebring, Ohio; Steubenville Pottery Co., Steubenville, Ohio; Vitrolite Co., Chicago; S. A. Weller Pottery Co., Zanesville, Ohio; Western Stoneware Co., Monmouth, Ill.

Alliance Brass & Bronze Co., Alliance, Ohio; Alton Barium Products Co., Alton, Ill.; American Dressler Tunnel Kilns, Inc., Cleveland; American Gas Association, Babcock & Wilcox Co. and Binks Spray Equipment Co., Chicago; the Bonnet Co., Canton, Ohio; the Bristol Co., Waterbury, Conn.; Brookville Locomotive Co., Brookville, Pa.; Brown Instrument Co., Philadelphia; Buckeye Clay Pot Co., Toledo, Ohio; Bucyrus-Erie Co., South Milwaukee, Wis.; Carborundum Company, Niagara Falls, N. Y.; Carrier Engineering Corp., Newark, N. J.; Cassity-Richards, Inc., Chicago; Chambers Bros., Philadelphia; Chicago Vitreous Enamel Co., Chicago; Clearfield Machine Co., Clearfield, Pa.; Corhart Refractories Co., Louisville; DeVilbiss Co., Toledo; Dings Magnetic Separator Co., Milwaukee; Deister Concentrator Co., Fort Wayne, Ind.; Eagle Iron Works, Des Moines; Erwin Feldspar Co., Trenton; Fate-Root-Heath Co., Plymouth, Ohio; Golding Sons Company, Trenton; Claud S. Gordon Co., Chicago; Global Corporation, Niagara Falls, N. Y.; A. P. Green Fire Brick Co., Mexico, Mo.; Hardinge Co., York, Pa.; Hopkins Bros., Alliance, Ohio; International Clay Machinery Co., Dayton, Ohio; Johns-Manville Corporation, New York; Leeds and Northrup Co., Philadelphia; Link-Belt Co., Chicago; The Manufacturers Equipment Co., Dayton; Marion Steam Shovel Co., Marion,

Ohio; Merritt Products Co., Chicago; Newark Wire Cloth Co., Newark, Ohio; New Castle Refractories Co., New Castle, Pa.; the Norton Co., Worcester, Mass.; Paper Makers Importing Co., Easton, Pa.; Patterson Foundry & Machine Co., East Liverpool, Ohio; Pennsylvania Pulverizing Co., Pittsburgh; Porcelain Enamel & Manufacturing Co., Baltimore; C. & G. Potts & Co., Indianapolis; Precision Grinding Wheel Co., Philadelphia; W. A. Riddle Co., Bucyrus, Ohio; H. C. Spinks Clay Co., Newport, Ky.; Wm. W. Stanley Co., Inc., New York; J. C. Steele & Sons Co., Statesville, N. C.; Thew Shovel Co., Lorain, Ohio; W. S. Tyler Co., Cleveland; United States Gypsum Co., Chicago; Wellington Machine Co., Wellington, Ohio; Wilson-Maule Co., Inc., New York.

Numerous other exhibitors also are expected to participate.

Dedication of Sterlington (La.) Power Plant.

Plans are being made by the Arkansas Power & Light Co., Pine Bluff, Ark., Harvey C. Couch, president, to formally dedicate the 120,000-kilowatt power station at Sterlington, La., operated by the Louisiana Power & Light Co., a subsidiary. Governor Long of Louisiana and the governors of Arkansas and Mississippi, or their representatives, with other leaders of industry, are expected to participate in the dedication. The plant is located in what is said to be the country's largest natural gas field.

\$600,000 Unit of \$2,800,000 Houston Building.

Houston, Tex.—Plans are being made by the First Christian Church, Rev. Harry G. Knowles, pastor, and R. W. Jenkins, chairman of the building committee, for constructing a 4-story and basement building, as the first unit of a 21-story church and office structure to cost \$2,800,000. The first unit to cost \$600,000 will be 125 by 175 feet, to provide 9 stores on the first floor, a main auditorium on the mezzanine floor to seat 2200, convention auditorium to seat 600, and a Sunday school department to accommodate 3000. James Ruskin Bailey, Houston, is the architect.

Steel Production Increase in 1928.

Production of 40,606,523 gross tons of open hearth steel ingots and 6,594,510 tons of Bessemer in 1928 is announced by the American Iron & Steel Institute, New York, on reports by companies which made 94.68 per cent of such production in 1927. The percentage of operation was 85.03, with 311 working days. These figures indicate an increase of 16 per cent for open hearth over 1927, 8 per cent in Bessemer and 12 per cent in operation. The approximate daily output of all the companies in 1928 was 160,300 tons, October, with 3,802,396 tons, being the heaviest month for open hearth and, with 598,227 tons, for Bessemer, also. The number of working days was the same for 1927 and 1928.

\$2,000,000 Auditorium and \$1,750,000 Courts Building for New Orleans.

New Orleans, La.—Bids will be opened February 11 by the Commission Council for the construction of the proposed \$2,000,000 auditorium here to have a capacity of about 11,000. The auditorium proper, 320 by 210 feet, will provide seats for 6500 and 2000 additional with the stage lowered, while an annex, 320 by 70 feet, will seat 3500. The building will afford space for a convention hall, theater, exhibitions, with auxiliary meeting rooms and dressing rooms. Favrot & Livaudais, Ltd., are the architects and Sam Stone, Jr., & Co., consulting architects, both of New Orleans. Leigh Carroll is chairman of the auditorium commission.

The Commission Council will also open bids the same date for the construction of a criminal courts and parish building to cost about \$1,750,000. The structure will be of Classic design, 4 stories, with a ground base 450 feet long. Diboll & Owen, Ltd., of New Orleans, are the architects.

Contract Soon on \$7,000,000 Unit of Goodyear Plant.

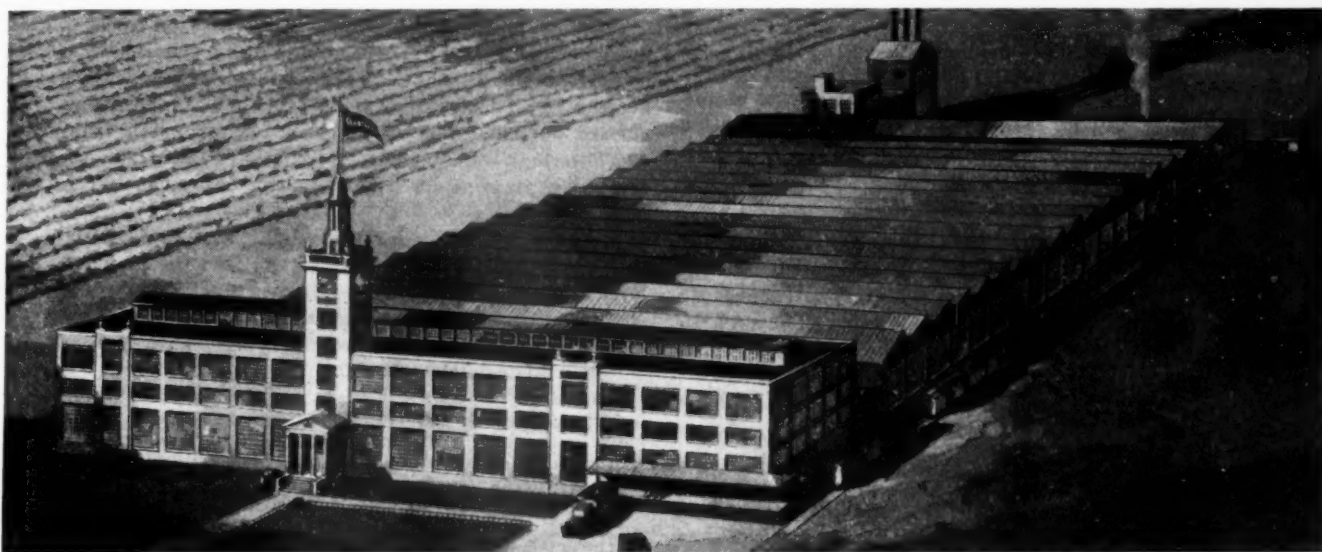
Plans have been completed and general contract will soon be awarded for the big tire plant to be erected at Gadsden, Ala., by the Goodyear Tire & Rubber Co. of Akron, Ohio. Construction of the plant and installation of machinery are expected to be completed by mid-summer, when the enterprise will be put in operation with the employment of 1800 workers and an initial capacity of 5000 tires daily. Fabric requirements for the new manufacturing unit, which will cost approximately \$7,000,000, will be supplied by the company's mills at Cedartown, Ga., some 50 miles distant.

The company has acquired a site of 400 acres on the Coosa River and will erect a 4-story building which will eventually have a frontage of 400 feet and depth of 800 feet. Engineering details are being handled by engineers of the Goodyear Company. During the period of construction, it is expected that new highways will be built, including a road from Gadsden to the Georgia line to connect with the highway from Cedartown, and railroad facilities will be provided, to

facilitate the transportation of raw materials and the finished product.

It is the purpose of the company to provide one of the most attractive mill villages in the country, paying special attention to parks, playgrounds, lawns and garden plots. Through the Gadsden Land & Building Co., of which Judge Louis L. Hersberg is president, it will erect a large number of dwellings, the houses to be of individual design and erected of brick, stone, wood and stucco, with a combination of these materials. Plans and specifications for the dwellings have been prepared by Robert & Co., Inc., Atlanta, who will receive bids February 1 for the construction of 475 houses, to cost about \$1,000,000. These will be one story and part basement, it is said, of frame construction with composition shingle roof, pine floors, electric wiring and grate heat.

Frank A. Steele, formerly assistant superintendent of the Goodyear Tire & Rubber Company's plant at Los Angeles, Cal., has been appointed superintendent of the Gadsden plant. He is now in Akron working on plans for the installation of equipment and machinery, placing orders for materials and equipment and selecting a personnel.



PLANT OF GOODYEAR TIRE AND RUBBER COMPANY TO BE ERECTED AT GADSDEN, ALA.

\$2,000,000 FOR ALABAMA NORMAL SCHOOLS.

\$6,000,000 Expenditure Recommended for Next Twelve Years.

Montgomery, Ala.—Appropriations aggregating \$1,700,000, authorized by the last Legislature for construction purposes on five normal schools for white students and one for negroes, will be supplemented by \$100,000 from the General Education Board for the negro normal school at Montgomery. Appropriated funds are distributed as follows: Troy, \$400,000; Florence, \$300,000; Jacksonville, \$300,000; Livingston, \$300,000; Daphne, \$200,000, and the negro normal at Montgomery, \$200,000. The total to be expended will approximate \$2,000,000, and the program includes classroom building, heating plant and dormitory on each normal school campus in the State. A recent survey by Doctors Strayer and Engelhardt of Teachers' College, Columbia University, New York, and Dr. Dressler of Peabody College, Nashville, Tenn., recommends a school building program in Alabama calling for the expenditure of \$6,000,000 in the next twelve years.

Rotary Forum Meets at Miami.

Representatives from Rotary clubs in many parts of the world are expected at the first annual Rotary forum, to open at Miami on January 20, invitations having been sent to every such club in the world from the Miami office. More than 5000 visitors are said to be assured for the meeting. Among the leading speakers will be I. B. Sutton of Tampico, Mexico, international president of the Rotary; Chesley R. Perry, secretary of the Rotary International; Dr. B. F. Ashe, president of the University of Miami, and Paul P. Harris, Chicago, president emeritus of Rotary. The general theme will deal with relations between the Americas and forum discussions will emphasize the international aspect of Rotary.

\$850,000 Building Announced for Washington.

Washington, D. C.—The District Investment Co. announces that an 8-story hotel, designed primarily for women employed here, will be erected at 11-19 E street northwest, at an estimated cost of \$850,000. Pierson & Wilson, local architects, are preparing plans.

\$15,000,000 EXPENDITURE PLANNED BY VIRGINIA ELECTRIC & POWER CO.

Two-Year Program Provides for Replacements and Numerous Extensions.

Richmond, Va.—Plans of the Virginia Electric & Power Co. will involve an expenditure of approximately \$15,000,000 within the next two years, according to William E. Wood, president. It is estimated that a \$4,000,000 expenditure will be made in 1929 for the expansion of its system, including additions and replacements, and that a similar sum will be expended in 1930 for similar purposes. In addition, the company plans to begin construction early in 1930 on a hydro-electric development on Roanoke River of 25,000 kilowatts capacity, this project calling for an expenditure of \$7,000,000 to \$8,000,000.

Expenditures for 1929 will cover the purchase of new street cars, buses and other equipment, but will not include maintenance expenses. One of the largest items in the budget calls for the purchase of electrical appliances of a technical nature to stabilize the transmission system and give greater precision of service. About \$300,000 will be expended for this feature of the service. The new Roanoke River power plant will be more than three times as large as the plant put in operation at Roanoke Rapids in 1925, with a production of 7000 kilowatts. If the company's application for necessary permits is approved by the Federal Power Commission, it is anticipated that some of the units of the new development will be ready for operation in the latter part of 1930.

Virginia As an Industrial State.

Industrial Virginia is described in a booklet with that title by Elmer O. Fippin, executive secretary of the State Commission on Conservation and Development, Richmond. In a facts sheet are compactly presented details on geography, population, health and sanitation, education, agriculture, industry, mines and quarries, banking and insurance, wealth and taxes, power and fuel and transportation. Those interested in further information on industrial aspects of the state, says Mr. Fippin, may write direct to one of the state or local agencies, a list of which is given in the booklet; included are 92 chambers of commerce, boards of trade and similar organizations. The illustrations include views of industrial plants in the state, also a number of scenes depicting dairy farm and agricultural activities and revealing the charm of the Virginia country side.

Big Sale of Florida Cement.

Tampa, Fla., January 9—[Special.]—It was but a few years ago when many people thought Portland cement could never be made in Florida but the great plant of the Florida Portland Cement Company here is not only furnishing cement to Florida but is shipping to Panama. That company has sold 20,000 barrels to the Panama Canal Commission. One-half of this has been shipped and the balance is to go forward in March.

\$6,125,000 Hydro-Electric Project in Arkansas.

Following assurances by city officials of Hot Springs, Ark., that the city would construct proper facilities for sewage disposal, the Arkansas Power & Light Co., of Pine Bluff, H. C. Couch, president, announces that his company will soon build a second hydro-electric dam on the Ouachita River. The proposed Carpenter plant will be constructed under the super-

vision of the company's engineering force with C. S. Lynch, chief engineer, in charge. Work on camping and other preliminaries has already started. It is said that the dam will create a lake of more than 9000 acres and that the project will cost \$6,125,000.

General Opposition to Jadwin Plan Voiced at Louisiana Flood Committee Meeting.

New Orleans, La., January 11—[Special.]—Progress was made in harmonizing the conflicting interests of Louisiana into a unified effort to have the national flood control plan modified as to engineering features and as to the question of compensation for the millions of acres that will be required for floodways, at the first meeting of the Louisiana Flood Committee, appointed by Governor Long under legislative act. Its members are James P. Butler of New Orleans, chairman, W. H. Sullivan of Bogalusa; J. D. O'Keefe of New Orleans; P. M. Atkins of Monroe; Ira W. Sylvester of Alexandria.

More than a hundred representatives from various parts of the territory subject to floods were present and advanced their peculiar needs; and after the meeting, Mr. Butler said he had been impressed by the harmony that developed, and the fact that the state as a whole is falling into the plan to present its complaints to Washington through this committee.

The meeting brought out a general opposition to the Jadwin flood control plans by men representing the Boeuf, Tensas and Atchafalaya basins. These complaints touched the engineering details, for it was stated that if the plans were carried out thousands of acres of land would be subject to overflow that were not now in danger of going under water; and also it considered the matter of compensation for floodways.

The flood problem in Louisiana, it was explained by Mr. Butler, has four general phases: work on the main river, in levee protection development; Bonnet Carre spillway; Boeuf basin control; the Atchafalaya. Governor Long, who also attended the meeting, in stressing the need for working through this committee, said:

"Louisiana can never get anywhere with 16 different levee boards urging 16 different plans for flood control, and with each levee district and community having its own flood control committee. You must, therefore, co-ordinate your authority. We are not going to carry a dozen or so different committees to Washington with a dozen or so different plans; we are going to work out one plan which will embody as many of the wishes of the various localities as we believe it will be possible to obtain from Congress. The State Board of Engineers, the various Levee Board engineers, and others will co-operate with this committee and will help it in arriving at a broad solution of Louisiana's flood control problem, and this plan can be carried to Washington in the expectation that it will have early and favorable action. We can't afford to delay. Business is badly muddled as a result of the uncertainty. We can't even complete our road program until certain of these problems are solved. We must get the very best concessions we can, and we must get started as soon as possible."

Speaking in behalf of southwest Arkansas, O. C. Burnside, Lake Village, Ark., said his interests were the same as those of Louisiana and expressed the hope that Herbert Hoover would amend the flood plan when he becomes President.

Among those who appeared before the committee were John W. Summerlin of Rayville, representing the Tensas levee district; W. E. Etheridge of Monroe; O. C. Burnside of the Southeast Arkansas Levee District, the interests of which are closely affiliated with the Tensas basin district; Mayor Arnold Bernstein of Monroe; H. P. Munger of Pointe Coupee; Douglas Robinson of Coon; G. M. Porter of Avoyelles; L. K. Williams of the Atchafalaya Protective Association; Walter Godchaux of New Orleans; John Klorer, city commissioner of New Orleans; Joseph Haspel of New Orleans, president of the Orleans Levee Board; A. D. Danziger, president of the New Orleans Association of Commerce.

Forestry in the Southern States.

By JOSEPH HYDE PRATT.

Forty years ago little thought was given to the conservation of our forests and no thought at all to the country's future timber supply. George Vanderbilt made the start in forestry with the assistance of Gifford Pinchot on the Biltmore Estate near Asheville in the early nineties. At that time no Southern State had made any direct appropriation for forestry. North Carolina, through its geological survey, was studying forestry conditions in the western part of the State. W. W. Ashe was on the survey staff as forester, and compiled with Gifford Pinchot a report on the timber trees of North Carolina, published as Bulletin No. 6 of the survey publications. The Maryland Geological Survey also carried on forestry investigations before the organization of the forestry department of Maryland in 1906.

Each state forestry department soon after it was organized realized that one of its chief functions must be along educational lines in informing the people of the need for the protection of forests from fire and from destructive methods of lumbering, and of the need of the cultivation of timber as a crop. If this had been put into practice 30 years ago every section of the South would be able to cultivate timber now by natural reproduction instead of as is necessary in many areas by planting seeds and seedlings. It may be said, however, that forestry has advanced from a condition of general indifference throughout the South to one of thoroughly awakened interest and that there now exists in many of the Southern states a definite recognition of the importance of safeguarding the South's timber supply.

Meager appropriations, wholly inadequate for the needs of the state forestry departments in discharging their responsibilities under the laws passed by their state legislatures, have been the experience of all. The sources from which the forestry funds are to be obtained is the moot question. One of the main functions of a forestry department is protection from fire, and where sufficient state appropriations are lacking, a plan of county cooperation is suggested. The state appropriation should be sufficient to cover the cost of patrolling the forest areas during the hazardous season, and for all warden expenses. The county should be authorized and directed to cooperate with the state forestry department to the extent of reimbursement for the cost of fighting and extinguishing any and all fires originating within its borders. It is believed that if the counties are compelled to pay this cost it will have a decided retarding influence on the starting of fires within the county; will cause more prompt reporting of fires; and will encourage the early extinguishing of a fire after it has been started. The people will feel a more personal responsibility.

Another method suggested as a source of revenue is a sales tax on forest products. It is the belief of the writer that direct state appropriations, or state appropriations and county cooperation as suggested above, are the preferable methods of raising revenue.

The work of state forest departments in every state should

In this article, Dr. Pratt, who is a director in the American Forestry Association and chairman of the executive committee of the North Carolina Forestry Association, points to the necessity for greatly increased appropriations for the protection of the timbered areas of the South and for the purchase of forest lands to become a part of the state reservations. He shows, too, that there is a slowly awakening public consciousness to the importance of reforestation and makes a plea for the cultivation of timber as a crop. Moreover, in most of the Southern states a certain amount of new forestry legislation is required if the progress is to be commensurate with the importance of the problem. — Editor MANUFACTURERS RECORD.

be state-wide. Unfortunately at present in many states the authority of the state forest service extends only into those counties and districts that are voluntarily cooperating with their state forest department, by the appropriation of funds either from the counties or from lumber corporations to protect from fire the forests in their respective counties or districts. To make the work in any state most effective, all counties should be brought under the jurisdiction of the forestry department.

A modification of the laws on assessment and taxation of forest lands is needed in nearly all the Southern states. Until some more equitable method is put into force there is little incentive to private interests to take up the commercial cultivation of timber.

If state legislatures would authorize and direct the classification, these lands that are to be used for the cultivation of timber could be assessed without reference to the standing timber, and this assessed value remain until the crops of timber or other forest products are harvested, when the state or its subdivisions would be reimbursed a certain amount, perhaps 10 per cent of the value of the forest products harvested. When forest lands are accepted as such, this should automatically bind the owner to maintain these areas in timber until the trees come to maturity and are ready to be cut. If it becomes necessary for any reason to clear the forested area, the state or its subdivisions are to be reimbursed a sum equal to an annual tax on the land at its real value of land and forest, or a stipulated annual amount agreed upon at the time of classification.

Those who have studied the future timber supply of the South and the value of forests in the protection of watersheds believe that every Southern state should have adequate laws authorizing and directing reforestation, to include when necessary the planting of seeds and seedlings over denuded and devastated areas. State nurseries will be needed for this latter purpose and also to enable the forestry departments to provide seedlings of various types at a moderate price for reforesting abandoned farm lands and other areas that should be brought back into forests rather than cultivated for other purposes.

Several Southern states, Maryland, North Carolina, Louisiana, Tennessee and Texas, have already given some consideration to acquiring areas for state forests or parks and it is believed that every state should acquire such lands as are more suitable for raising timber than for other purposes. These areas should be of considerable assistance in building up a strong forestry department, and should make a good investment.

In North Carolina, where the forested area amounts to nearly 23,000,000 acres and represents over half the total area of the state, it is thought that if the Federal Government acquired certain areas for national forests it would have a beneficial effect in arousing the people to the need of protection and conservation and the economic value of publicly owned forests. It is urged that every Southern state,

in which the Federal Government has and is acquiring areas as national forests, should make provision as rapidly as possible for acquiring areas for state forests also, equal at least in acreage to that acquired by the Federal Government and administered as national forests.

Maryland has recently repealed the Enabling Act of 1908 permitting the national government to acquire land for national forests in Maryland. At the time the act was passed Maryland had no prospect of acquiring by purchase land for state forests. Since then, however, the state has adopted a program of state forest acquisition believing it is more important to handle the publicly owned forests than for the Federal Government to do so. In considering this action of Maryland it must be borne in mind that the forested area of Maryland is small as compared with such areas in other Southern states.

Arkansas is the only Southern state that has not made provision for a state forestry department. The forestry departments of Florida and South Carolina have but recently been authorized. Elsewhere in the South the forestry departments have developed into strong organizations, functioning in most instances very efficiently. Their work has merited and is receiving the support and cooperation of lumbermen and timber land owners. While some lumbermen still look upon the work of forestry departments as idealistic and of little economic value, most of them realize that the work is very much in the interest of the lumber industry, as well as in the interest of the state.

North Carolina is still encouraging the Federal Government to purchase forested areas within the state for national forests; but at the same time has urged the General Assembly to make provision for the acquisition of forested areas in different sections of the state, equal at least in area to the acreage acquired by the Federal Government.

The Southern Appalachian states are interested also in that phase of forestry which relates to conservation of water powers. The protection of the forests at the headwaters of streams on which water powers are located is essential to the regulation of the flow of these streams and to permit the development to maintain the maximum load. Maintenance of forest covered areas over a large part of the river basins is of material help in reducing the amount of silting in the reservoirs.

\$5,000,000 Texas Power Development Projected.

Regarding a recent report that the Texas State Board of Engineers, Austin, has authorized the Hunt Development Co. to construct five hydro-electric power plants and dams on the Guadalupe River, between Seguin and Gonzales, the Fargo Engineering Co., Jackson, Mich., advises that the development program is still in a tentative stage and that actual construction will probably not begin for a year. It is estimated that the proposed plants will develop 16,000 horsepower and will cost \$5,000,000. The Fargo Engineering Co. will have full charge of engineering details.

To Stimulate Chemical Export Trade.

In line with the general movement for the development of foreign markets for American goods, Export Day will be made a feature of the Twelfth Exposition of Chemical Industries to be held at the Grand Central Palace, New York, in the week of May 6. The interest of foreign visitors in American chemical products, apparatus, instruments, machinery and equipment has been shown progressively in recent years, and Thursday, May 9, will be devoted to enlightening foreigners on American products and obtaining from the visitors information of value to the American trade.

GEORGIA POWER COMPANY TO EXPEND \$7,000,000.

1929 Budget Provides for Marked Activity in All Departments.

Atlanta, Ga.—Plans of the Georgia Power Co. for 1929, as outlined in a statement by Preston S. Arkwright, president, involve the expenditure of \$7,000,000 for public utilities in the state, the funds to be widely distributed. An item of \$3,000,000 has been set aside for extensions and improvements in towns served by the company and for the acquisition of new transmission and distribution lines, while another appropriation has been made for additions and improvements to primary and customer sub-stations. In the hydro-electric plants department, funds have been allotted for additions and improvements; transmission lines to be extended to many sections of the state, and distribution lines provided for serving additional customers. The company's private telephone system connecting all its power developments, sub-stations, districts and cities, will be extended and improved.

Many developments are contemplated in the railway department, including the street railway systems in Atlanta, Macon, Augusta, Rome and Athens, and a large sum has been appropriated for improvements in the manufacture and distribution of gas in Atlanta and Macon. New water mains and hydrants, with extensions, will be installed in Brunswick for the Mutual Light & Water Co., a subsidiary of the Georgia Power Co., and contracts have already been signed on nine other rural lines, which are expected to bring the total mileage by the end of 1929 to approximately 300 miles.

During the past year, the company modernized the railway systems of Rome and Athens and rehabilitated the Macon system, the latter work having been started in 1927. One of the chief improvements outside of Atlanta in the gas department, was the construction of a 1,000,000-cubic foot gas plant at Brunswick, while improvements were also made in the gas department at Macon. An additional sum of money has been set aside for reservoir costs and engineering surveys for the hydro-electric development at Clark's Hill on the Savannah River near Augusta.

A resume of the company's activities in 1928 shows a number of important projects begun and others, including the work of relaying cables and conduits in the Pryor avenue and Central viaducts section of Atlanta. A start was made on a rural electrification program, eleven lines having been placed in operation since July 2, covering 37.5 miles and serving 382 customers. Thirteen other rural lines have been authorized and some of them are under construction. All are expected to be in operation by April 1. The company continued its efforts to bring large industrial enterprises to Georgia and assisted materially in locating a number of large plants recently announced. It was also active in construction projects.

\$6,000,000 Development Projected for Holston River.

Preliminary plans of the Tennessee Eastern Electric Co., Knoxville, for its proposed Hemlock development on the Holston River to involve an expenditure of \$6,000,000, call for a concrete dam of the gravity type, 1250 feet long with 110 foot head. The reservoir area will be about 2000 acres. Active plans for the construction of the project are pending a decision of the Railroad and Public Utilities Commission of Tennessee on an application of the company for a certificate of convenience and necessity and on a decision of the Federal Power Commission on an application for the necessary permit. The Tennessee Eastern Electric Co. is under the management of Henry L. Doherty & Co., New York.

Yale University Honors Southern Statesman.

By MATTHEW PAGE ANDREWS, Baltimore, Md.

For several years after leaving college I enjoyed the privilege of friendship with the late Charles Francis Adams, the grandson of one President of the United States and the great-grandson of another. Mr. Adams died in Washington in 1915, whereupon I wired from Baltimore to Richmond for flowers to be forwarded with his body to its final resting place in Massachusetts. I expressed the hope that these Southern-grown blooms would, on the fiftieth anniversary of his march into the Capital of the Confederacy, be symbolical of the extraordinary good Mr. Adams had done to promote intersectional charity in helping to remove misunderstanding between the sections.

It is one thing to put flowers upon the graves of the dead; and it is another thing to pay tributes to those now living, when, in this world, at least, it will do more good. I wish to bear witness to the fact that there are others who are now taking up the work where Mr. Adams left off.

Twenty years ago the publications of the Yale University Press emanated from a pigeon hole in a busy man's desk. Today it is sponsoring two of the most ambitious educational productions ever attempted. One of these undertakings is unique and is not likely ever to have a rival, partly, at least, for the reason that the undertaking is costly and educational, rather than costly and commercial. I refer to the production of thirty-odd historico-educational photofilms on outstanding epochs in American history, fifteen of which have been projected and are in constant use in those schools and colleges which are prepared for their presentation.

The second great work, which is certainly extraordinary, and, I believe, likewise unique, if we put scholarly success of achievement above commercialization, represents the setting forth, within reach of all, of the most complete picture gallery of Americana ever brought together. These are bound topically, logically, and chronologically in fifteen volumes representing the reproduction of over fifteen thousand illustrations accompanied by explanatory text prepared by the ablest historians obtainable. Twelve of these fifteen volumes have appeared and the whole work goes under the felicitous title of *The Pageant of America*.

But this brief historical summary of a national enterprise is introductory to the unfolding of a news story of intersectional interest and import.

On November 23 the writer was given the privilege of making the announcement at Houston, Texas, before the General Convention of the United Daughters of the Confederacy, that the Yale University Press had been enabled to give prints of the completed *Chronicles of America* photoplays to the educational authorities of New Orleans and Richmond for free presentation in those cities in honor of Judah P. Benjamin, Secretary of State in Jefferson Davis' Cabinet—and a quondam "rebel" official, if you please, one of those civil leaders whom, in 1861-65, Charles Francis Adams and his associates from Harvard and Yale had set out to capture by force of arms—not without the thought of hanging them for high treason. At that time, Yale had no scholarships to proffer either on behalf of Judah P. Benjamin or in memory of John C. Calhoun, the former of the class of 1829 and the latter of 1804!

This Yale endowment has been given "to perpetuate the memory of Mr. Benjamin in the field of government." The words are those of Mr. George Parmly Day, Treasurer of Yale University and President of the Yale Press, but the italics are my own. They are intended to call attention to this New England recognition of the contribution of the South in the field of statecraft, in part, at least, on the other

side of "the armed controversy," to use an expression in a letter of Oliver Wendell Holmes in referring to his wish that he had had the genius to write a State hymn of the calibre of Randall's *My Maryland*—a letter which hangs above my desk as I write. I would say further that this gift is a recognition of Charles Francis Adams' dictum that "both sides were right"—meaning that both sides had justification for their contentions, a doctrine that I, as a son of Virginia, Massachusetts, and Maryland, may subscribe to all the more heartily, because of these personal and family ties, over and above all due loyalty to our reunited country.

Again, this notable, if not unique, endowment is in memory of the only individual in history who achieved distinction at the bar of three countries, or under three governments—the United States, the Confederate States, and Great Britain; and it is a continuation of a previous endowment at Yale University School of Law "to commemorate Mr. Benjamin's distinguished services to the legal profession."

In the *MANUFACTURERS RECORD* of December 6 I find an editorial article entitled, "The Nicaragua Canal a Necessity in Time of Peace and a Safeguard in Time of War," from which I quote this excerpt:

"Nearly a century ago, Commodore Maury, the 'Pathfinder of the Seas,' in a brilliant report on the need of a canal to connect the Atlantic and the Pacific oceans, stated that, when the barrier between these oceans should be broken down, the commerce of the world would be changed and would largely center in the region tributary to the Gulf of Mexico and the Caribbean Sea. That prediction is now finding fulfillment."

Matthew Fontaine Maury was, like Benjamin, a Southerner, and, I believe, the greatest scientist of the New World, second only to Humboldt of the Old. I would earnestly commend the thought to some Southerner of means that he seize the opportunity to return the Judah P. Benjamin compliment and, at the Sheffield Scientific School of Yale, establish a similar endowment in honor of the man who, by his discoveries of the character and nature of trade winds and ocean currents, did more to aid and promote international commerce than anyone in modern times.

Aluminum Company of America Planning \$2,000,000 Rolling Mill.

Alcoa, Tenn.—A \$2,000,000 rolling mill will be built here by the United States Aluminum Co., a subsidiary of the Aluminum Corporation of America, Pittsburgh, Pa., according to a recent announcement by Col. R. L. Streeter, Pittsburgh, vice-president and general manager of the United States Aluminum Co. The plant building will be 100 by 900 feet, of brick and steel construction, and equipped for the production of duralumin and alclad, metals used in airplane manufacture and in railway cars, buses and street cars. The plant will employ about 500 operatives and will have an initial capacity of 1,000,000 pounds of sheet metal monthly, with a possibility of increasing to 3,000,000 pounds.

Building Trades Employers Conference.

Invitations have been issued by the National Association of Building Trades Employers to contractors engaged in building construction and to all associations in the building industry to attend its annual Construction Conference, to open January 24, at Chicago, in the Builders Building. Many problems of interest are to be discussed. Information may be obtained from the association, 2226 Builders Building, Chicago.

1,900,000 TONS CARRIED BY INLAND WATERWAYS CORPORATION.

Developing Commerce on Mississippi and Other Rivers—Will Inaugurate New Routes and Expand Facilities.

The Inland Waterways Corp., owned by the United States and governed by the Secretary of War, for the year ended December 31 carried the largest amount of tonnage in its history, according to Major-Gen. T. Q. Ashburn of the United States Army, chairman and executive of the corporation. This tonnage amounted approximately to 1,900,000 tons and was carried, it is said, with an average revenue per ton less than in 1927, but with such greatly reduced operating costs per ton that the net operating revenue increased 15 cents per ton. The total net operating revenue of the entire corporation for 1928 was approximately \$350,000, after an absorption of \$400,000 depreciation and \$225,000 losses on the upper Mississippi River.

During the year a grain transfer plant, from car to barge, was put in operation at the City Terminal, Minneapolis, Minn., a grain transfer, barge to barge, at St. Louis and a grain transfer, rail to barge, at Cairo, Ill. A terminal was completed during the year at St. Paul, Minn., while new terminals were put in commission at Burlington and Dubuque on the upper Mississippi River, and a site was selected for another terminal at Rockford, Ill. A terminal at Vicksburg has been rebuilt and will be put in commission soon. New sugar transfer facilities will soon be completed at Reserve, La., and mooring facilities have been extended at Algiers, La.

Terminals were completed and put in commission at Holt, Alabama, and at Birmingham, Ala., and a new powdered coal burning steamer constructed for the Warrior River which will be put in commission soon. Forty-five additional 500-ton barges were put in operation on the upper Mississippi River. An appropriation of \$10,000,000 has been authorized for the purchase of additional capital stock and to provide for the inauguration of new routes and divisions and extensions of operations on other streams.

Plans of the Inland Waterways Corporation for this year contemplate the establishment of a terminal at Rock Island, Ill., reopening the Vicksburg terminal and opening a terminal at St. Paul, alterations or extensions at St. Louis, East St. Louis, Memphis, Helena, Mobile, Holt and Birmingham and the design of towboats and barges for the Illinois and Missouri rivers. Funds to be made available by Congress will be expended for new floating equipment, an item of which will be the conversion of a steel hull from the Shipping Board into a combination 24-car float and storage unit to replace a unit of the Cairo terminal which recently sank.

Tampa's Record Phosphate Shipments.

Shipments of 1,506,766 tons of phosphate to 13 States and 15 foreign countries in 1928 are said to be a record for the port of Tampa for any one year since 1920, representing increases of 134,648 tons over 1927 and 235,040 over 1926. Japan took 135,500 tons and Germany was second with 133,900, while Maryland led all states in receiving phosphate from Tampa with 312,600 tons shipped to Baltimore.

\$1,250,000 Contract for Texas Gas Lines.

El Paso, Tex.—General contract for constructing a 105-mile gas line and 220 miles of telephone line for the El Paso Natural Gas Co. has been awarded to the Connor & Son Construction Co., Kansas City, Mo., at approximately \$1,250,000. The line will extend from a field in Southeastern New Mexico to El Paso, while the telephone line will traverse the

same route and in addition will have a number of branches and connections. It is understood that the Joslyn Manufacturing & Supply Co., North Kansas City, will furnish poles for the telephone line and the Kansas City branch of the Standard Underground Cable Co., Pittsburgh, Pa., will supply insulation, wire and cable.

\$450,000 Addition for Winston-Salem Hotel.

Winston-Salem, N. C.—Construction will be started by the Winston-Salem Hotel Co. on a \$450,000 addition to the Robert E. Lee Hotel here, which will provide 150 rooms, bringing the total to 340 rooms. The addition will be 12 stories, 100 by 60 feet, of pressed brick, concrete and steel.

Exporting Scrap Iron From Jacksonville.

The Times-Union of Jacksonville reports heavy exports through that port of scrap iron. It says: "After loading here for the past ten days, the German steamer Venus sailed direct for Danzig with 3225 tons of scrap iron aboard. She was loaded to capacity. More than 15,000 tons of scrap iron, steel, brass and copper, have been shipped through this port during the past several months, consigned to Danzig and ports in Japan.

"The Tufuku Maru, a Japanese vessel, is due in port within the next few days and it is expected that she also will carry scrap material collected from all parts of the state."

May Develop Eastern Kentucky Asphalt Deposits.

Rock asphalt deposits in eastern Kentucky may soon be developed, according to information from C. Frank Dunn, executive secretary of the Kentucky Progress Commission, Frankfort. The names of parties connected with the enterprise have not been announced. This is said to be the first enterprise of this kind undertaken in this section of the State, although several companies are operating in western Kentucky.

Acting on information obtained by the Kentucky Progress Commission, citizens of Owensboro, Ky., are endeavoring to promote the erection of a cornstalk pulp mill and recently sent representatives to Danville, Ill., to inspect a plant there.

\$4,000,000 Oklahoma City Hotel Planned.

Oklahoma City, Okla.—Plans are being made for erecting a 25-story hotel at Grand and Harvey avenues, to be known as the Oklahoma-Biltmore Hotel and to be operated by the Bowman Management, Inc., New York. The structure will be erected by a local company, of which C. F. Colcord is president; Martin Reinhart, contractor, P. W. Tibbs, and W. T. Hales, vice-presidents; J. B. Landers, secretary, and F. P. Johnson, treasurer. R. J. Edwards, John Sinopoulo and J. W. Hawk, of Hawk & Parr, architects, are also interested in the organization. Preliminary plans call for an 8-story automobile hotel in connection with the enterprise. The project is estimated to cost \$4,000,000.

Railroad Expending \$5,000,000 for Flood Protection.

St. Louis, Mo.—An additional expenditure of \$2,096,000 for the protection of its right-of-way against high water has been authorized by the Missouri Pacific Railroad Co., according to L. W. Baldwin, president. This brings the total of such authorization since the floods in 1927 to over \$5,000,000. The additional expenditure will be used in Arkansas, it is said, to raise the grade above high water between Newport and Bradford and for stone ballast and rip-rap in the White and Cache river valleys between Bald Knob and Winne. Of the entire authorization, a total of \$3,221,000 will be expended in Arkansas.

IRON, STEEL AND METAL MARKET

Continued Increase in Production of Steel.

Pittsburgh, January 14—[Special.]—Steel production is running at a slightly higher rate this month than last. A substantial increase has been the usual thing from December to January, but last month's production was so heavy that it was less easy than usual for this month to bring an increase. A large part of the current shipments are against old orders, or specifications filed in December against fourth quarter contracts, so new year business is not yet fully opened.

The official report of Bessemer and open-hearth steel ingot production in December bears out the estimate made in this report a fortnight ago, that production during the month averaged about 85 per cent. The official report shows 4,415,434 gross tons, or 160,617 tons per working day, or 85.20 per cent of assumed capacity. The year's average is 85.03 per cent of capacity reported for December 31, 1927, while the 1927 average was 75.83 per cent, computed against the capacity of a year previous, about 2½ per cent less.

The monthly reports for 1928 show a total of 49,853,225 tons, but allowing for electric and crucible ingots, not included, and some technical points, the prospect is that the final official total for the year, due in April or May, will be about 50,500,000 gross tons, as previously forecast. This would be 15 per cent increase over 1927 and 7½ per cent increase over 1926, hitherto the record year.

Chances are strong that the present quarter will make a new first quarter record, and only the fact that there is a longer look ahead diminishes the chance that the second quarter will make an equally good showing. The second half is another matter, for the second half of last year, being exceptionally good, left a hard record to beat.

The Steel Corporation's unfilled obligations increased in December by 303,712 tons, which would make a very good showing for an ordinary month but is only a fair average showing for December, which has regularly run much heavier in bookings than in shipments, for the double reason that contracting in the ordinary steel products is heavier for a first quarter than for other quarters, and that the seasonal rail buying movement adds much tonnage. This rail buying movement has brought out less tonnage than one year or two years ago, and that fact is probably chiefly responsible for the unfilled tonnage increase during the fourth quarter being unusually small, only 278,344 tons, when some fourth quarters have shown a million tons or more increase.

For several months the generalization in the steel trade has been that finished steel prices were engaged in an advancing movement. This was a trifle overdrawn, as the advances that occurred were not large and they fell quite short of applying to the whole range of steel products. At any rate the period for such a reference is now past. All advances contemplated have been announced and are part of the present quotable market. There is good ground for a statement that no further advances of consequence will be attempted in any circumstances, producers being content to stand on their present position. On the other side there is the point that some of the advances have not yet been fully tested. While contracts for the current quarter have been written at the full prices, there is still no little tonnage in some lines to be delivered at old prices. Not all buyers are as yet paying the full advanced prices on all their receipts and until they are the mill position is not fully consolidated.

Fabricated structural steel lettings reported last week ran light, totaling only 23,000 tons, but not much is expected so shortly after the first of the year. The Missouri Pacific has ordered 3000 freight cars and the Atchison 750 cars. No rail buying of importance is reported.

The Pittsburgh district scrap market is in a delicate posi-

tion. Prices have advanced more than the mills like and mills are guarded in their purchases. Pig iron remains dull but may be helped by the stiffness in scrap.

Dullness Marks the Metals—Prices Firm.

New York, January 14—[Special.]—The metals generally are quiet and dull. In fact, the seasons have been reversed. During the holidays the metals should have been dull to follow custom, but were very active instead. Now they should be showing more life after the holiday dullness, but the contrary is prevailing. However, prices of the major metals continue firm and prospects are bright for good business before long.

Copper has not yet reached its goal of 17 cents per pound in the domestic market and now that the wave of buying is over thought about the market has become more sober and it is wondered whether many consumers did not overbuy. There is also some question of whether prices advanced too rapidly late last year. A little weakness has developed in the zinc market, where there have been concessions of 2½ points, though this is hardly enough to constitute a downward trend of the metal. Tin is fluctuating aimlessly between 49c and 50c per pound.

Among the minor and precious metals platinum has changed the most, having been reduced in price by \$4 per ounce, present prices being the lowest in six months. Quicksilver prices are also a shade easier, being obtainable at \$121 per flask, as against \$122 a week ago. Silver prices are very steady and on several days recently quotations have been the same as for the preceding day.

If the steel industry is a barometer for the non-ferrous industry prospects are exceedingly bright. Steel production this month will probably be a new high record for the first month of the year and there is the chance that first-quarter output will also be a new high. Large projects involving steel are coming to the fore, such as shipbuilding and freight car and locomotive orders, all of which take large quantities of non-ferrous metals as well as steel. The response from current automobile shows may determine the scale of automobile buying in 1929 and the amount of metals used in the building thereof. The general prosperity may stimulate automobile sales in 1929. Changed models should appeal to the public's fancy.

Copper sales have been made in a decreasing volume. Export sales have diminished from 10,000,000 pounds daily last week to 2,000,000 pounds daily this week. Domestic business has been very light. March production is virtually completely sold up and 50 per cent of the April production is by now under contract. A few scattering orders for May have been placed. Should the selling price of copper be raised ¼c per pound more it is quite possible that labor may again appeal for a share of the better earnings, just as they did when 16c was reached. From now on producers will be very conservative in advancing prices. First, at higher levels there is more danger of a drastic price reaction; second, labor may have to be paid more wages; third, substitutes for copper may be used in some cases. The International Nickel Company reduced the price of nickel cathodes 2c per pound to 35c per pound, the same price which has applied right along to nickel ingots. Nickel shot prices are also unchanged at 36c per pound. Cathodes were reduced to become effective on January 1.

Traders in the tin market have been rather puzzled by the world situation and are nervous because of the highly artificial state of the market. The Anglo-Oriental combine continues to buy tin, storing it in both official warehouses and unofficial warehouses. Tin in official storage places in

the United Kingdom continues to increase about 225 tons weekly and the trade fears that much tin is hidden in unlisted places.

The trend of the tin market was changed decisively on Thursday when the London market came down £3 per ton and prices here declined $\frac{3}{8}$ c to 49c per pound, which is close to the low level of swings over the past several weeks. It is estimated that Straits tin shipments in January will be 8,500 tons, as against 6,000 tons monthly, which used to be regarded as normal. A tin authority who has just surveyed the situation in Malaya reports there is enough tin in sight to supply the world for at least 200 years longer, which rather discredits reports of recent years that a tin famine looms within the next 20 years.

Tin sales on the National Metal Exchange on Wednesday were only five tons, a new low record, comparing with 705 tons for a day as the high record in the six weeks of operation of this new exchange. Tin plate production in 1928 was 14 per cent ahead of 1927 and it is predicted that consumption in 1929 will be as heavy as during the last year. Tin plate makers are working at full capacity now.

For the first time in weeks the zinc market has been showing evidences of getting away from the price stability and uniformity that has characterized the past several months. Small producers have evidently found it difficult to make sales at the full prices in the face of the competition of the larger producers who have better facilities for remaining in direct contact with buyers. It is the smaller producers who have been quietly making price concessions.

Lead prices were unchanged all week at 6.65c per pound, New York, and 6.50c, East St. Louis. Producers are not pressing sales, having sold out their January production and at least half their February output.

Steady Production and Active Delivery of Pig Iron—Base Price Firm.

Birmingham, Ala., January 14—[Special.]—Melters of pig iron are buying slowly, the small-lot customers now holding forth. Deliveries are active and will so continue through the first three months, if not longer. Production is steady and will be indefinitely. The larger iron melters have been in the market for considerable tonnage and admit that before long there will be additional purchases necessary. Cast iron pressure pipe manufacturers in particular will be in the market again; an increased output of pipe is seen as necessary on the passing of the present month. Tonnage on books at the beginning of spring promises to be much greater than a year ago. This district is now able to produce a considerably larger tonnage of centrifugal or mechanically made pressure pipe than ever before. The soil pipe industry is expected to require more pig iron. Other melters are reporting new business and expectations are that iron for second quarter will soon have to be given attention.

Base price of foundry iron holds firmly at \$16.50 to \$17 per ton, No. 2 foundry. There is no dearth of any grade and instructions as to deliveries from melters, large and small, are being carried out. Much iron is being moved. As with the pressure pipe makers, other melters are looking forward to greater production. Stove foundries are active; the Kelley Stove & Range Co., which has erected a small shop at Leeds, 20 miles from Birmingham, will begin manufacture of stoves and ranges in a modern way, all machinery being electrically driven and each machine with a separate motor. Southern pig iron is considered ideal for stove manufacture.

Steel production is reported steady, with prospects for speeding up next month. The sheet mill is operating on double turn night and day. There is good demand for plate and structural while the smaller shapes are enjoying fairly good patronage. Fabricating shops are looking forward to some healthy specifications which will call for big tonnage.

Officials of the Warrior river barge service are booking heavy tonnages for movement down the river for distribution in the Southwest during February and March. Export business for the time being has fallen off to almost nothing, so far as being handled down the river from the Birmingham district.

Preliminary work is under way on improvements, expansion and further development in steel circles heretofore announced. The Tennessee Coal, Iron & Railroad Company is to build a second unit of its sheet mill, 12 sheet furnaces to be added to the present plant, half of the work to be completed during 1929 and the remainder the following year. This will give the T. C. I. a greater output of sheet which is in strong demand now and when the plant of the Pullman Car & Manufacturing Company is in operation toward the end of the year, it will find a still better market. Improved open hearth furnaces will be installed at the Ensley Works of the corporation also.

The coal industry is maintaining the little impetus taken on in December though the demand is not as big as it could be. Indications are that the tonnage for the year will exceed that of 1928. Preparations are under way for much research work in the coal fields here, fixed nitrogen from coke oven gas now being assured this year. Coke is holding firmly and all by-product works of the district are in operation, in some instances to capacity. Demand has improved, as various iron and steel works either resume operation or speed up production. Foundry coke price base continues at \$5. Scrap iron and steel is selling on a 60 day basis, expectations being that another improved condition will set in. Best quality of heavy melting steel sells at \$12.50.

Quotations for pig iron and iron and steel scrap follow:

FIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$16.50 to \$17.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$17.00 to \$17.50; iron of 2.75 to 3.25 per cent silicon, \$17.50 to \$18.00; iron of 3.25 to 3.75 per cent silicon, \$18.00 to \$18.50; charcoal iron, f. o. b. furnace, \$29.00.

OLD MATERIAL.

Old steel axles	\$16.00 to \$17.00
Old iron axles	16.00 to 17.00
Old steel rails	12.00 to 13.00
Heavy melting steel	11.50 to 12.50
No. 1 cast	14.50 to 15.00
Stove plate	13.00 to 13.50
No. 1 railroad wrought	9.50 to 10.50
Old car wheels	12.00 to 12.50
Old tramcar wheels	12.50 to 13.00
Machine-shop turnings	9.00 to 9.50
Cast-iron borings	9.00 to 9.50
Cast-iron borings (chem.)	13.00 to 13.50

Government Figures on Copper.

The smelter production of copper from domestic ores in 1928 as determined by the Bureau of Mines from reports of the smelters showing actual production for 11 months and estimated production for December, was 1,849,000,000 pounds, or 10 per cent more than 1927, and is the largest peace-time production on record. The estimated smelter production from domestic ores for December as reported by the smelters, was 179,000,000 pounds which is 27,000,000 pounds higher than the average for the 11 months preceding. The production of new refined copper from domestic sources was about 1,763,000,000 pounds, compared with 1,719,000,000 pounds in 1927. In 1928 the production of new refined copper from domestic and foreign sources amounted to about 2,470,000,000 pounds, compared with 2,326,000,000 pounds in 1927, an increase of 144,000,000 pounds or 6 per cent. The production of secondary copper by primary refineries increased from 210,000,000 pounds to about 240,000,000 pounds in 1928.

Imports of unmanufactured copper during the first 11 months of 1928 amounted to 699,758,092 pounds, compared with 718,322,990 pounds for the entire year 1927, and total imports for 1928 will likely show an increase in quantity of approximately 50,000,000 pounds for the year. The exports of metallic copper during the first 11 months of 1928 amounted to 1,039,055,909 pounds compared with 1,069,493,121 pounds exported during the 12 months of 1927.

NEW AND IMPROVED EQUIPMENT

Bins and Measuring Devices.

The Heltzel Steel Form & Iron Company, Warren, Ohio, reports improvements in steel bins and weighing and volume grabbers during the past year. In all-steel bins of 35 and



HELTZEL STEEL BIN

55 ton capacity, the reinforcing members have been made more rigid and the slope of the hopper plates has been increased to 50 degree slope, which insures ready flow of materials. The 55 ton bin is flanged on four sides.

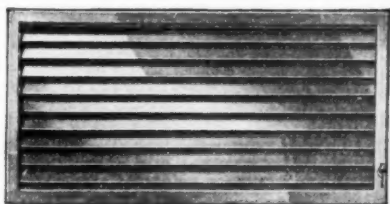
In the Heltzel volume grabbers, the top gates are constructed to prevent materials getting into wearing parts and jamming; the operating gears and ratchets increased in size to permit easier operation, and the design of toggles changed to permit

greater track clearance. A choice as to method of operating is also given: (1) By means of a lever, permitting operation from ground; (2) chain and wheel, permitting operation from ground or platform; (3) hand wheel, permitting operation from platform. In addition, a geared adjusting device for quick changing of capacity on volume grabbers may be had at a slightly higher cost. The capacity of the stone compartment is 3000 pounds, or approximately 31 cubic feet, and the sand compartment has a capacity of 2000 pounds, or approximately 20 cubic feet.

The duplex grabber is equipped with an American Kron automatic springless dial scale, having a 36-inch dial graduated to 5000 pounds by five-pound graduations. This dial is mounted on a special structural steel support, which is carried to the outside members of the bin, and is equipped with pointers which can be set to any desired position on the rim.

Panelouvre for Ventilation.

As its solution to the problem of ventilation, the Ventilouvre Company, Inc., Bridgeport, Conn., offers the Panelouvre, which the company supplies in any size desired. The

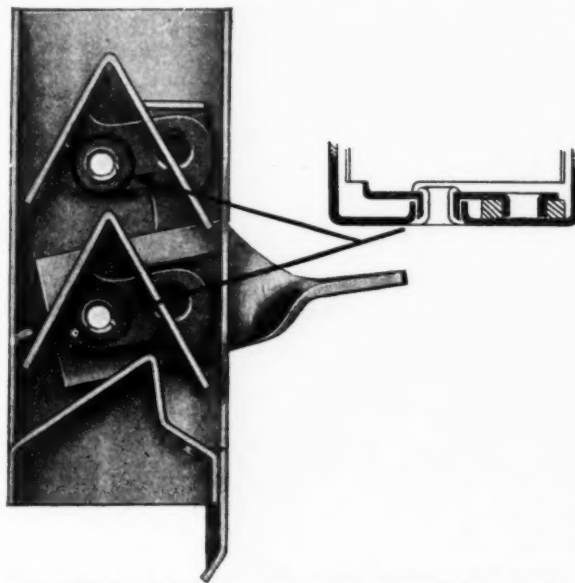


PANELOUVRE, WITH METAL MOLDING AROUND ROOM SIDE.

Panelouvre is said to give twice the amount of free area of the old style transom when open at an angle of 45 degrees; the movable louvers are V-shape inverted and air currents are deflected only once. Air openings, the company

says, occur in every inch of space, with air currents projected over the entire area of the Panelouvre, which always is light proof and vision proof.

Cross-section inspection of the Panelouvre, showing the shape of the inverted V louvers, indicates how the air can pass through the unit without obstruction, yet closing off



CROSS-SECTION SHOWING HOW THE LOUVRES OPERATE ON STEEL BEARINGS.

of the ventilator operate independently of each other by small triggers, and the inside solid wood laminated panel is controlled by a solid brass friction hinge or arm. The summer door type Panelouvre is furnished with or without the laminated panel, but with the panel is said to pass fully 50 per cent more air than a wood slat door. The unit is guaranteed light and sight proof as well as burglar and fireproof.

The device is thought to be of especial value for use in the South.

Looks for Banner Year in Steel and Wire Industry.

Indication of sound conditions in the steel and wire industry as a whole and among the individual corporations and concerns in that business is noted in a statement by W. H. Jennings, manager of sales of the Baltimore Branch of the American Steel & Wire Company. First saying that his company has just closed "a most satisfactory year," Mr. Jennings adds:

"Our average new contracts for 1928 exceeded any record since 1919 and our average specifications sent to the mills for the same period have been exceeded only once during the same length of time.

"Our shipments in round figures from our mills for the year will run 1,750,000 tons, which, one may acknowledge, is a very heavy business in wire products, and has only been exceeded on one or two occasions in the entire life of our company—during the war periods.

"There has been a great deal more stability to price conditions in the past six months than for some time past, and while, naturally, we have not yet approached a perfect condition in this respect, there has been a great improvement over recent years.

"The most interesting citation in our records, as we go over them, is the great increase in the use of steel wire for manufacturing purposes, and this is very encouraging in view of the strong competitive industry in which we are engaged. We can say that we are all looking forward to 1929 as being a 'banner year' in the steel business, and, particularly, as far as the wire industry is concerned."



Cape Girardeau Bridge over the Mississippi River at Cape Girardeau, Mo.

Shortening Roads to Save Money

Relocation Often Aids Safety—By-pass Routes Relieve City Traffic Congestion

AN INTERESTING change of sentiment is coming about in the matter of routing main highways through towns and cities, a recent editorial in *Alabama Highways*, official publication by the State Highway Department, Montgomery, points out. Some years ago the layout of highway systems was seriously complicated by the insistent demand of small communities that trunk roads be routed over their main streets. Highway engineers, who recognized the error of such location, argued strongly in favor of passing the roads around rather than through towns. But the pressure of the local demand, coupled with the fact that in a great many cases the existing highway locations were the controlling factors and that towns along their course could not be avoided, made through-the-town routes quite universal. Now, having learned by experience that traffic is not an unmixed blessing, many towns are coming to see the undesirability of having arterial roads use their main streets. More and more complaints are heard from town authorities about the congestion of traffic and the cost of installing signals and policing main streets that serve a dual purpose. It has

become a problem with them how to keep local business moving when there is a dense stream of through traffic in the local business district, with the result that not only is it expensive to maintain traffic lights and police supervision, but the cost of maintenance is materially increased. Accordingly, the construction of by-pass roads is proceeding with new impetus. This development, however, may bring some new problems in that it has been found by experience that settlements rapidly develop along main highways at strategic points. It is, however, a distinct gain to have the small towns and cities realize the unwisdom of trying to put double service—street and through road—on a single thoroughfare.

Another interesting development in this connection is the possibility of shortening roads to save money, putting into practice the age-old principle that a straight line is the shortest distance between two points. Heretofore, it has been necessary not only for highway builders to consider the demands of towns and cities for state routes over their main streets, but the question of excessive grades hindered bee-line routes. Now, with improved motor vehicles of

all types and their ability to negotiate readily most ordinary grades, routes may be laid out more easily in a straight line than ever before. In laying out and generally rebuilding the state highway route from Washington to the North Carolina state line the Virginia State Highway Commission under the direction of Commissioner H. G. Shirley, lopped off 40 miles from the old route, which passed through many towns and had many bad curves. The former route from Kansas City to St. Louis passed through many towns, with the result that through traffic was delayed seriously. A new route, recently completed, avoids the towns and makes it possible to traverse the distance in much less time with far less annoyance due to traffic congestion.

What the relocating of state highways means in the saving of mileage and paving costs was strikingly pointed out by Gibb Gilchrist, Texas State Highway Engineer, in a recent address before the Texas section of the American Society of Civil Engineers when he declared that the state system comprising 18,000 miles of roads can be shortened 5 per cent or 900 miles, conservatively speaking.

"Basing the construction cost of 900

Sugar cane being conveyed by tractors over good roads for planting on 12,000 acres in the vicinity of Clewiston, Fla., for the Celotex interests.



miles at \$25,000 per mile, we have the enormous sum of \$22,500,000 as a saving by reason of location," said Mr. Gilchrist. "It would be much more economical to save the money on highways and put it into lateral roads than to allow improper location to prevail.

"Any community has the right to expect and should have highways for lateral roads, but do they have the right to demand that cardinal state highway traffic, carrying from 10 to 15 times the traffic that would originate in their community, be diverted through such a community at great cost?

"My opinion is that in the location of state highways we should strive as far as possible to secure for our cardinal roads the most direct practical location, giving due regard to the origin of traffic using the road and working out such location together with the lateral and sub-cardinals that the travel of the average vehicle over such a highway will be at a minimum. I think that every town of any importance in Texas should be served by a state highway or a lateral road and that location should be considered chiefly on the economic basis of travel and distance of travel.

"For example, the purely rural road to follow the land lines and serve as many farms as possible; the lateral or sub-cardinal road should link the smaller communities leading to a cardinal state highway, while the cardinal road should be located and built on the most direct and practical route, and every mile saved is worth saving.

"There are many communities in Texas which originate on the cardinal highway from 100 to 200 vehicles per day, but in order to serve such communities the cardinal state road is deflected 2 or 3 miles out of its course, requiring from 2000 to 3000 vehicles per day to travel the extra mileage.

"We are now in the Texas Highway Department spending entirely too much money revising bad location, revising grade line and either widening right of way at considerable expense or moving the roads to a location where right of way can be secured. I think we should begin right now to lay the foundation of a great road system of Texas, and we should lay it and base it on the principle of the greatest economy to the greatest number of citizens of Texas. Such a program requires fearless devotion to it and perhaps some delay, but I am committed to it because I believe that the vast majority of the people of



Portion on Mayo Trail between Harlan and Pineville, Kentucky.

Texas want their road system laid out on the plans commensurate with the size and greatness of this great state."

The amount of money saved by proper location or relocation of roads, due to shortening, is very much greater than the average citizen realizes, says H. G. Shirley, Commissioner, Department of Highways, Richmond, Va.

"In constructing the road from Washington to Richmond and thence to the North Carolina line, known as Interstate Route 1, the State Highway Commission endeavored to build this road between the centers of population as direct as possible," says Mr. Shirley. "It was necessary to get quite a good deal of legislation through to change the road from where it was first designated, and this along with the cut-offs made by relocation and straightening out the bends, reduced the distance by 40 miles, which made a saving to the State of \$1,600,000 at an average cost of construction, including bridges, of approximately \$40,000 per mile.

"It has been estimated by our engineers that due to relocations something over 10 per cent of the total distance of the new construction has been saved and with the legislative changes from routes as first designated this amount will run up to 15 per cent. In the construction of the system of 7000 miles this would make 105 miles saved at a

cost of \$40,000 per mile, or \$4,200,000 saved, besides the saving of the operation of the vehicles not having to pass over the longer mileage.

"If we take the estimate made by Professor Agg, where a road has a traffic of 1000 vehicles per day, for every foot of distance there would be saved \$60.00, which multiplied by the 105 miles, reducing it to feet, would make \$33,000,000 approximately, or to be conservative, take one-half of this would be, say, \$16,000,000 plus \$4,000,000 saved in construction, would make a saving of \$20,000,000.

"When we make a study of these figures they clearly indicate the great care that should be exercised in building trunk highways between large centers of population.

"However, we should not allow these figures to be the controlling influence in selecting feeder roads and roads that are constructed to serve agricultural interests. It is my opinion that such roads should be located and constructed regardless of distance and to meet the local needs of commerce that will be carried over them. In other words, roads should be laid out and constructed taking into consideration as much as possible the local needs of the territory as well as the most direct and shortest distance that can be had in serving these needs by proper construction."

Samuel Eckels, chief engineer of the Pennsylvania Department of Highways, asserts that in the last few years relocations brought about by new highway paving have shortened Pennsylvania roads by 210 miles. Mr. Eckels estimates that this travel distance saved is worth more than \$10,000,000 annually to the users of Pennsylvania highways.

Relocations, highway authorities point out, are not always feasible, but frequently new alignments can be made that make for straighter and safer travel. For instance, Colorado has just completed a 73-mile concrete pavement between Denver and Colorado Springs—an up-to-date highway that is not interrupted by a single railroad grade crossing. Five of the original 13 crossings were eliminated simply by relocation of the highway.



Road through a typical Ouachita Parish cotton plantation in Louisiana.

CONSTRUCTION DEPARTMENT

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained.

The date at the end of an item indicates issue of the Manufacturers Record in which earlier facts about the same enterprise were published.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$40.00 a year.

Airports, Airplane Plants, Etc.

Ark., Little Rock—Arkansas Aircraft Corp., A. O. U. W. Bldg., probably install new shop equipment.

Fla., Miami—Miami Airways, Inc., chartered; Fred. W. McKay, Henry W. Mittag.

Fla., Miami—Curtiss Flying Service, Inc., Garden City, Long Island, New York, reported, will expend \$1,000,000 here within next two years, half of sum to be expended in 1929.

Ky., Louisville—National Aviation School, 809-815 W. Market St., planning establishing monoplane manufacturing plant.

Md., Baltimore—Consolidated Instrument Co., of America, J. Leopold, acquired Julien P. Friez & Sons, Baltimore St. and Central Ave., Baltimore, and Molded Insulation Co., Mount Vernon, N. Y.; all companies involved engaged in airplane accessory manufacture; purchasing company issuing 55,000 shares of common stock, no par value, through Hambleton & Co. for financing expansion program.

Mo., St. Louis—Robertson Aircraft Corp., St. Louis Flying Field, and Universal Air Lines of Minneapolis, Minn., plan establishing passenger air service from St. Louis to Springfield, Muskogee, Dallas, and other points in Southwest.

Tex., Roswell—Chamber of Commerce interested in establishing airport.

Tex., Odessa—Chamber of Commerce interested in establishing airport; site available 2 mi. west of city on Bankhead Highway; plans for financing being completed.

Va., Alexandria—Berliner Aircraft Co., Inc., Henry A. Berliner, Pres., plans minimum of 200 ships in 1929; large modern plant to be available for occupancy in spring.

Bridges, Culverts and Viaducts

Proposed Construction

Fla., Tampa—B. T. Davis, V.-P., United Dredging Co., 716 Franklin St., plans starting construction about Feb. 1 of \$3,000,000 causeway across Old Tampa Bay from foot of Michigan Ave., Tampa, Hillsborough County, to Gulf to Bay Blvd., near Clearwater, Pinellas County; surveys completed; finances assured. 8-23, 1928

Louisiana—Louisiana Highway Comm., Baton Rouge, receives bids Feb. 12 for 2 bridges: Winn Parish—over Dugdemona Bayou, on Winnfield-Olla Highway, three 43-ft. conc. deck girder spans, on conc. piers and abutments, pile footings; Bossier Parish—over Loggy Bayou, Loggy Bayou-Ringgold Highway, Bossier and Bienville Parishes, one 140-ft. steel fixed span, creosoted pile trestle approaches on each end, each 20-ft. roadway clearance; W. H. Norckayer, Acting Highway Engr.

Md., Baltimore—Baltimore and Ohio R. R., H. A. Lane, Ch. Engr., may let contract by Feb. 1 for its part of Hanover St. viaduct, to be built by City, B. & O. R. R. and Western Maryland Ry.; Chas. F. Goob, Ch. Engr. of Baltimore. 10-4

Miss., Hattiesburg—Mayor and City Commrs. receive bids Jan. 25 for 2 rein. conc. bridges: 75-ft. River Ave. Bridge, 30-ft. roadway, two 5-ft. sidewalks; 55-ft. McLeod St. Bridge, 26-ft. roadway, two 4-ft. sidewalks; plans from Milo S. Ketchum. 12-27

N. C., Plymouth—State Highway Comm., plans 3 bridges over Roanoke, Middle and Cashie Rivers, and causeway connecting bridges, in Washington County, from Washington St., Plymouth, to intersect Highway No. 342, Eden House road, Bertie County; Highway Engineers making survey.

N. C., Shelby—Cleveland County Commrs., A. F. Newton, Clk., considering expending \$20,000, for bridge construction, necessitated by flood damages last year. See Financial News.

Oklahoma—State Highway Comm. received low bids for 10 bridges. See Roads, Streets, Paving.

Okl., Tulsa—City, Dan Patton, Mayor, and Frisco Lines, E. G. Jonah, Ch. Engr., St. Louis, Mo., considering widening underpass beneath tracks at Peoria Ave. crossing 20 to 40 ft., including 7-ft. sidewalks.

Tenn., Knoxville—City, Otto Roehl, Mgr., appropriated funds for survey and plans for bridge at or near Ninth St. structure; also for widening Fourteenth St., Main to Cary; plans underpass through tracks of Richmond, Fredericksburg and Potomac R. R. at Lombardy and Marshall St.

Tenn., Memphis—Dept. of Highways and Public Works, Nashville, plans starting improvements about Mar. 1 on approach to Hanrahan Bridge on Memphis side, including widening underpass beneath Rock Island tracks alongside Virginia Ave., and widening street to bridge; estimated cost \$120,000; T. C. McEwen, State Highway Engr.

Texas—State Highway Comm. receives bids for 3 bridges. See Roads, Streets, Paving.

Texas—State Highway Comm., Austin, plans overpass and underpass. See Roads, Streets, Paving.

Tex., Beaumont—Jefferson County plans 2 bridges. See Roads, Streets, Paving.

Tex., Canyon—State Highway Comm., Austin, receives bids Jan. 21 for underpass approaches, grading, draining, from Canyon, .801 mi. north to Federal Aid Project No. 60-B, on State Highway No. 33, Randall County; 20,605 cu. yd. excavation; A. E. Dyatt, County Engr.

Tex., Crockett—State Highway Comm., Austin, receives bids Jan. 22 for .7015 mi. steel and concrete bridge across Trinity River between Houston and Madison Counties, timber pile trestle approaches; Gibb Gilchrist, State Highway Engr.

Tex., Dallas—Dallas County, Charles E. Gross, Auditor, receives bids Jan. 28 for 2 steel bridges for Dist. No. 3.

Tex., Newton—State Highway Comm., R. S. Sterling, Chmn., Austin, plans steel and conc. bridge across Sabine River, Highway No. 63, between Newton County and Merryville, La.; State Highway Comm. granted \$85,000 to match funds provided by State of Louisiana.

Tex., San Antonio—City, Paul E. Steffer, Commr. of Streets, plans receiving bids for Josephine St. Bridge over San Antonio River; Hawley & Freese and O. N. Flood, Flood Engrs.; I. Ewig, City Engr.

Va., Berryville—State Highway Comm., Engineers, Richmond, surveying route at Berrys Ferry, Clarke County, for new Shenandoah River Bridge, soon to be erected at that point.

W. Va., Huntington—Chesapeake and Ohio Ry. Co., C. W. Johns, Ch. Engr., Richmond, Va., applied to local U. S. Engineers Office, for authority to construct steel bridge over Gauley River, between Bryce and Beech Glen, 28 ft. above low water.

Contracts Awarded

Ala., Aliceville—War Dept., Washington, D. C., approved plans Alabama State Bridge Corp., Montgomery, for automobile bridge over Tombigbee River between Aliceville and Cochrane. Lately noted contract let. 12-13

D. C., Washington—N. P. Severin Co., 222 W. Adams St., Chicago, Ill., contractors for Boundary Channel Bridge of Arlington Memorial Bridge, sub-let contract to Concrete Steel Co., 42 Broadway, New York, for rein. steel. 12-20

Fla., Jacksonville—City, State of Florida, and Jacksonville Terminal Co., J. L. Wickes, Pres., let contract, jointly; MacDougald Construction Co., 545 Angier Springs road, Atlanta, Ga., \$302,000, for Beaver St. viaduct;

Ralph W. Hunter, Res. Engr.; W. E. Sheddan, City Engr.; J. L. Cresap, State Highway Engr., Tallahassee, and Ch. Engr. for Jacksonville Terminal Co., will supervise construction; work starts Feb. 1. 11-15

Fla., Stuart—Martin County Commrs. let contract to M. F. Comer, 1039 N. Biscayne Blvd., Miami, \$55,272, for Olympia bridge across East Coast Canal, at narrows, above entrance to Hobe Sound.

Canning and Packing Plants

Ark., Springdale—Johnson Consolidated Canning Co., Inc., capital \$150,000, incorporated; W. L. Diven, Johnson; W. H. McIlroy, Fayetteville; consolidate canning plants in Springdale, Johnson, Gentry and Wickes.

N. C., Kinston—Johnson-Earl Myers, Inc., capital \$250,000, incorporated; Joseph Oringer, Pres.

Clayworking Plants

S. C., Columbia—Guignard Brick Works, capital \$100,000, incorporated; C. C. Guignard.

Tex., Dallas—Reliance Clay Products Co., A. E. Eaton, Pres., Republic Bank Bldg., acquired properties of former Reliance Brick Co., Dallas, Tyler Brick Co., Tyler; Midwest Brick Co., Wagoner, Okla., and Mineral Wells Brick Co., Mineral Wells; will have combined capacity of 50,000,000 brick and 50,000 tons hollow tile yearly.

Coal Mines and Coke Ovens

Ky., Frankfort—Stearns-Kelly Coal Co., incorporated; James H. Kelly, R. W. Henderson.

W. Va., Charleston—Paragon Coal and Coke Co., capital \$20,000, incorporated; J. C. Evans, H. F. Day.

Cotton Compresses and Gins

Ark., Arkansas City—Citizens Gin Co., incorporated; E. O. Sponenbarger.

Ark., Mineral Wells—Jay V. Toland plans erecting 1 story cotton gin, install 4-stand 70-saw Murray gin.

Tex., Shallowater—Shallowater Gin, Inc., capital \$27,000, incorporated; B. M. Farmer, R. A. Shaver.

Drainage, Dredging and Irrigation

Ark., Pine Bluff—Commissioners of Tucker Lake Levee and Drainage Dist. planning \$50,000 bond issue to make possible further expenditures for work in district formed to drain large area about 4 mi. north of here.

N. C., Winston-Salem—Office of Bd. of Drainage Commrs., Forsyth County Drainage Dist. No. 3, Winston-Salem, N. C.—Bids Jan. 22 for dredge ditches and lateral ditches. See Want Section—Bids Asked. 12-20

Virginia—U. S. Engr. Office, Norfolk, Va., receives bids Jan. 24 for dredging channel across Rockland Shoal in James River, Va. See Want Section—Bids Asked. 12-6

Electric Light and Power.

Electric light and power work in connection with many LAND DEVELOPMENT operations involves the expenditure of large sums of money. See that classification for details.

Ark., Hot Springs—Arkansas Power and Light Co., H. C. Couch, Pres., Pine Bluff, soon begin construction of second hydro-electric dam on Ouachita River, create lake of more than 9000 acres; cost \$6,125,000; company advises Carpenter hydro-electric plant

will be constructed under supervision of own engineering force with C. S. Lynch, Chief Engr., in charge; work on camping and other preliminaries has started.

Ark., Huntsville—J. G. Hix granted 25 yr. franchise, operate light and power system.

Georgia—Georgia Power Co., Atlanta, plans expending \$7,000,000 for extensions and enlargements in 1929, including acquisition of new transmission and distribution lines, street railway improvements, water mains and hydrants at Brunswick, etc.

Ga., Brunswick—Georgia Power Co., Atlanta, reported, acquired properties of Mutual Light and Water Co.; serves St. Simons Island and Brunswick; electric and gas properties will be operated as branch of Georgia Power Co.; water plant operated separately as subsidiary company.

Ga., Elberton—City install white way system; G. F. Cleveland, Supt. Lighting.

Ga., Griffin—Georgia Hydro-Electric Co., D. L. Evans, Local Mgr., reported, expend \$200,000 for improvements and expansion; operates hydro-electric plant at High Falls and steam plant here; Spooner & Merrill, Inc., 100 W. Monroe St., Chicago, Ill., engineers in charge of construction; project consists of installation of 3000 kw. hydro-electric unit, modernizing of switchboards and substation; plans not yet available.

Miss., Blue Mountain—Dixie Construction Co., 600 N. 18th St., Birmingham, Ala., has contract for high tension line, Blue Mountain to Myrtle, for Mississippi Power Co., Gulfport. 1-3

Miss., Booneville—Floyd Estates Co., Opelika, Ala., has contract for lighting system. 12-20

Mo., Cape Girardeau—Missouri General Utilities Co., controlled by American Utilities Co., 600 N. Second St., Harrisburg, Pa., plans extending electric light line to serve 4 towns in north section.

N. C., Asheville—Southern States Power Co., capital \$300,000, formed by merger of Carolina-Tennessee Power Co. and Haverhill Electric Co.; by Theodore N. Bates, Murphy; E. H. Shufre, New York.

Okl., Kildare—City, reported, construct power line, Ponca City to Kildare.

Okl., Stillwater—Oklahoma Gas and Electric Co., Oklahoma City, reported, negotiating for light plant.

Tenn., Knoxville—Knoxville Power and Light Co. will install automatic synchronized converter station at Queen's and Wells Alley; building 60x30 ft.; cost \$70,000; capacity 600 volts and 1000 kw.

Tex., Austin—See Water Works.

Tex., Austin—Southern Utilities Co., W. A. Keeling, Littlefield Bldg., Local Rep., reported, negotiating for electric light and power plant, will rebuild Lake Austin Dam on Colorado River.

Tex., Eagle Pass—Maverick County Water Improvement Dist. No. 1 applied to Federal Power Comm., Washington, for preliminary permit to construct open ditch and concrete tunnel to carry water by gravity, diverted from Rio Grande River; installed capacity 7200 hp.; develop for lighting and irrigation.

Tex., San Antonio—San Antonio Public Service Co., W. B. Tuttle, Pres., plans expending \$1,000,000 during 1929 for improvements and extensions, including extension of service and facilities; expend \$1,000,000 to complete second 30,000 kw. unit at New Braunfels power plant; \$725,000 for transmission lines, substations, transformers on lines radiating out of San Antonio; connect new substation, 2 miles south of Selma, with cement plant at Fratt; expend \$800,000 in gas department; \$350,000 in traction department.

Tex., Seguin—Hunt Development Co., reported, granted permission by State Bd. of Engineers, Austin, to construct 5 hydro-electric power plants and dams on Guadalupe River between Seguin and Gonzales; company advises program is still in tentative stage; actual construction may not begin for about 1 yr.; Fargo Engineering Co., Jackson, Mich., has full charge of all engineering in connection with proposed projects.

Tex., Wichita Falls—Northern Texas Utilities Co. soon offer \$4,000,000 first mortgage 7% sinking fund bonds, through A. M. Lamport & Co., Inc., and Freeman, Smith & Camp Co., Portland, Ore.

Va., Cedar Bluff—Appalachian Electric Power Co., Bluefield, acquired local lighting system; construct substation.

Va., Richmond—Stockholders of Utilities Power and Light Corp., 327 S. La Salle St., Chicago, voted to increase maximum authorized class A stock from 1,000,000 shares to 5,000,000 shares and increasing class B from 1,000,000 shares to 5,000,000 shares. 1-3

West Virginia—West Virginia Hydro-Electric Co., Charlottesville, Va., withdrew application at hearing before Public Service Comm., Charleston, for hydro-electric power plant on New River at Richmond Falls. 11-29

Foundry and Machine Plants

Fla., DeLand—Jasper Grove Heater Co. establish plant for manufacture of charcoal burning stoves.

Md., Towson—Black & Decker Mfg. Co., S. Duncan Black, Pres., let contract to W. H. Sands, Pennsylvania Ave., for 1-story addition to plant; manufacturers of electrical tools. 10-17

N. C., Salisbury—Rowan Foundry and Machine Works, Inc., capital \$50,000, chartered; T. M. Hines, Ross M. Sigmon.

Tex., Houston—Texas Electric Steel Casting Co. increasing capital stock, \$75,000 to \$150,000.

Gas and Oil Enterprises

Ark., Little Rock—Biscoe Oil Rights Holding Corp., incorporated; J. G. Thweatt, DeVal's Bluff; Dr. J. H. Scroggins, 721 W. Markham St., Little Rock.

Ky., Louisville—Casey Oil Co., incorporated; A. B. Casey, 1331 E. Main St.

La., Monroe—Richland Carbon Co., capital \$250,000, incorporated; S. R. Humble, J. A. Hale; construct 4-unit carbon plant between Alto and Archibald, also gasoline extraction plant.

La., New Orleans—Big Chief Refining Co., Godchaux Bldg., New Orleans, and 104 W. Seventieth St., New York, let contract to Graham Engineering Co., Godchaux Bldg., for \$1,000,000 refinery; receiving bids on all classes of work, including foundations, piling, struc. steel, wharves, brick work, pipe work, hot oil pumps, etc. See Want Section—Machinery and Supplies, Building Material and Miscellaneous.

La., Shreveport—Snake Creek Oil Co., Inc., capital \$25,000, incorporated; J. T. Tanner, 736 Kingshighway.

La., Shreveport—Lyons Gas Co., Inc., chartered; C. H. Lyons, Ardis Bldg., Shreveport.

La., Shreveport—Arkansas Natural Gas Corp., Ardis Bldg., reported, construct warehouse, meter shop and garage at Samford Ave. and Dalzell St.; plans by company's engineering department; rein. conc., struc. steel, brick and sheet metal.

La., Winnfield—Natural Gas Co., 131 S. Grand St., Monroe, acquired gas mains and laterals of Suburban Realty Co., Inc.

Miss., Vicksburg—City votes Jan. 31 on granting natural gas franchise to F. M. Fuller, 1607 Euclid Ave., Shreveport, La.

Mo., Poplar Bluff—Missouri Natural Gas Co., O. Dodd, Commercial Mgr., plans expending \$200,000; erect gas plant, extend natural gas mains, etc.

Oklahoma—Superior Oil Corp., Tulsa, Okla., and Louisiana Oil Refining Corp., Shreveport, La., reported, completing details of merger; 2 shares of stock of Superior Oil Co. to be exchanged for 1 share Louisiana Oil Refining Corp.'s stock; Louisiana Oil Refining Corp. owns oil producing properties in Louisiana, Arkansas, Oklahoma and Texas, with refineries at Shreveport.

Oklahoma—Prairie Pipe Line Co., Independence, Kan., plans \$8,000,000 construction program in 1929 increasing daily delivery from Mid-Continent to Great Lakes by 20,000 bbls.; enlarge main line from Panova station near Shawnee to Griffiths, Ind., by constructing loops; extend the line from Shawnee to Oklahoma City.

Okl., Bartlesville—Indian Territory Illuminating Oil Co., reported, plans erecting \$100,000 casinghead gasoline plant on Bodine lease; daily production 7000 gals. gasoline.

Okl., Oklahoma City—Slab O' Oil Co., capital \$100,000, incorporated; P. A. Shannon, Ardmore; Sam Lichner, Duncan.

Okl., Oklahoma City—The Texas Co., reported, acquired acreage in Cleveland and McClain Counties from Phillips Petroleum Co.

S. C., Anderson—Sinclair Oil Co. erect plant near W. Market St.; install 3 storage tanks, build warehouse, etc.

S. C., Gaffney—E. W. Galloway, Ch. Engr., Western Gas Construction Co., Fort Wayne, Ind., making survey of territory to be served by proposed \$5,000,000 commercial gas system planned by Great Northern Utilities Co., 3933 Drexel Blvd., Chicago, Ill. 8-23

S. C., Greenwood—Stacy Bros. Gas Construction Co., 5535 Carthage Pike, Cincinnati, Ohio, has contract for gas plant for Greenwood Gas and Fuel Co.; work to begin as

soon as bids for holder foundation are accepted; Greenwood—Anderson and Sumter Companies will be operated by Eastern State Gas and Power Co., incorporated in Maryland, with Alfred I. Phillips, 122 Greenwich St., New York, Pres. 1-3

Tenn., Chattanooga—Southeastern Oil Co., 1800 Central Ave., increase capital from 2000 to 3000 shares of common stock of no par value and \$300,000 of preferred stock of \$100 par value.

Tex., Brownwood—Southside Gas Co., incorporated; A. D. Bruce, M. J. Hall.

Tex., Midland—Shipley Oil Corp., capital \$64,000, incorporated; John F. and Joe E. Shipley.

Tex., San Antonio—Indian Creek Oil and Gas Co., capital \$20,000, incorporated; F. L. Martin, 421 Roosevelt St.

Tex., Spearman—C. E. Foote, Shamrock, granted gas franchise.

Tex., Waco—Central Texas Gas Co. granted 25 year natural gas franchise.

Va., Martinsville—Harris Oil Co., Inc., capital \$25,000, chartered; C. M. Hart, A. M. Harris; establish distribution plant at Fieldale Station.

W. Va., Charleston—Reisman Oil and Gas Co., capital \$100,000, incorporated; Roy B. Collins, Jack Patton, Frankenberg Bldg.

W. Va., Weston—Mid-Penn Oil Co. increased capital stock from 4000 shares par value \$25 to 8000 shares par value \$25.

Ice and Cold-Storage Plants

Miss., Tupelo—J. B. McGuire acquired site, E. Main St.; erect ice plant.

Miss., West Point—West Point Ice and Coal Co., Mose Williams, Local Mgr., increase plant capacity 20 tons to 35 tons a day; machinery ordered for new electrically operated 15-ton unit.

N. C., Salisbury—Home Ice Company of Salisbury, capital \$50,000, incorporated; C. H. Klutz, Jennie M. Yancey.

Tenn., Memphis—Kay Ice Co. let contract to Ferguson Construction Co., Graham Bldg., for \$15,000 ice plant; 1-story, brick.

Va., Petersburg—Zero Ice Co., capital \$50,000, incorporated; C. W. Wells, 1546 Berkeley Ave.

Iron and Steel Plants

Tenn., Memphis—Wheeling Steel Corp., H. K. Moore, Special Agt., Wheeling, W. Va., advises acquired 11-acre tract fronting on Mississippi River, south of Riverside Park; lay tracks and install suitable facilities for unloading steel product; do not expect to erect any buildings; let contract for grading to Hughey Bros. Const. Co., 971 James St. 1-10

Land Development

Ala., Gadsden—E. S. Draper, Landscape Engr., Charlotte, N. C., J. M. Shelton, Atlanta, Ga., Archt.; L. W. Robert, Jr., Const. Engr., both Bona Allen Bldg., Atlanta, Ga.; A. H. Zieske, Constr. Engr., Akron, Ohio, outlining plans for residential development in connection with erection of Goodyear Tire and Rubber Co.'s plant; plan model village, parks, playgrounds, etc.

Ala., Gadsden—O. D. Stewart Real Estate Co., Inc., chartered; O. D. Stewart, Gadsden.

Fla., Clearwater—E. B. Castler, Sr., acquired citrus grove in Pinellas County.

Fla., Daytona Beach—Florida Grape Nurseries, Inc., incorporated; Edgar M. Dunn, 134 Orange Ave.; developing grape nurseries at Titusville.

Fla., Jacksonville—Perry & Perry Atlantic Shores Co., incorporated; F. S. Perry, 1484 Avondale St.

Fla., Miami—Jehara Co., Inc., chartered; C. N. Grimshaw, 766 N. W. 13th Ave.

Fla., Ocala—Osceola Estates, Inc., chartered; Muriel Cook, Frank R. Greene.

Fla., Orlando—Hyland Stanford Co., Los Angeles, Cal., reported, acquired control of juice extracting plant at Forest City.

Fla., Boca Raton—Spanish River Land Co., Clarence H. Geist, Pres., Packard Bldg., Philadelphia, and Boca Raton Club, plans completing development of former Mizer subdivision as winter colony with country club and model golf course; expend several million dollars for improvements; Clark L. Poole, Florida representative.

Fla., Palatka—The Medlin Corp., incorporated; S. H. Huff, J. V. Walton.

Ga., Folkston—Citizens Co. incorporated; Wm. Mizell, Sr., B. G. McDonald.

Ga., Macon—Georgia Fruit Growers, Inc., chartered; M. C. Gay, J. C. Porter.

Ga., Savannah—Carolina Land Co., capital \$200,000, incorporated; D. T. Furse, 101 E. 47th St.

Ky., Leitchfield—Krueger Development Co., capital \$100,000, incorporated; W. O. Krueger, R. C. Holmes.

Ky., Louisville—Louisville Realty Co. increased capital, \$100,000 to \$400,000.

Ky., Louisville—Mammoth Cave National Park Assn., 416 W. Liberty St., acquired Mammoth Cave, including 2208 acres.

Ky., Louisville—Overbrook Land Co., capital \$35,000, incorporated; William L. Hoge, 1319 Willow St.; Peyton H. Hoge, Jr.

Ky., Louisville—Thompson Blace Land Co., capital \$25,000, incorporated; Wm. L. Hoge, 1319 Willow St.; J. T. Dugan.

Ky., Louisville—Bd. of Park Commrs. expend \$150,000 for improvements to parks and playgrounds; install lights, construct wading pools; erect shelter houses.

La., Lake Charles—Southwest Louisiana Real Estate Co., Inc., capital \$350,000, chartered; Frank Roberts, 703 Pujo St.

La., New Orleans—Ecuyer Realty, Inc., chartered; E. E. Ecuyer, 1614 Esplanade Ave.

La., Shreveport—Paradise Colonization Co., Inc., 812 City Bank Bldg., develop 650 acres for orange groves; will clear and plow land; expend \$30,000.

La., Slidell—Louisiana & Northern Fur Ranches, Inc., chartered; Ed. P. Pederson, Slidell; M. I. Miller, LaCrosse, Wis.

Md., Baltimore—Chilton Co., 2838 Winchester St., incorporated; Frances Rassa.

Md., Baltimore—Sylvan Homes Corp., 3100 Fair Ave., incorporated; John H. Sause, Jr., Horton S. Smith.

Md., Baltimore—Goodwill Realty Corp., First Natl. Bank Bldg., incorporated; Israel Silberstein.

Md., Baltimore—Carbeck Co., Cedarcroft Rd., incorporated; Harry R. Carroll, Martin McNamara.

Md., Baltimore—Tiderville Land Co., Light and Redwood Sts., incorporated; Joseph L. Kerr, Rudolph F. Bolard, Jr.

Md., Baltimore—United Realty Corp., American Bldg., incorporated; Joseph and Benjamin Siegel.

Md., Silver Springs—North Washington Realty Co., E. Brooke Lee, Pres., develop several hundred acres for subdivision; install conc. streets, curb and gutter, sidewalks, sewer and water; North Washington Construction Co., T. I. Medley, Gen. Contr.; Harry Shaw, C. E.; Charles E. Zeller, Landscape Archt., all Silver Springs.

Miss., Columbus—J. L. Sparkman acquired 400 acres 12 miles south of city.

Miss., Gulfport—City plans developing Joseph T. Jones Memorial Park.

Mo., Hollister—Acacia Country Club, Inc., chartered; W. E. Limbacher, George Hunt.

N. C., Enfield—Dunn Farms, Inc., capital \$100,000, chartered; J. W. Whitaker, J. C. Branch.

N. C., Kings Mountain—Crowders Mountain Co., capital \$104,000, incorporated; B. P. Harris, C. L. Hamrick.

N. C., Winston-Salem—Snyder-Sides Myers Co., capital \$50,000, incorporated; H. C. Snyder, 108 N. Main St.

Tenn., Maryville—Amerine Co., Inc., capital \$890,000, chartered; C. F. Weisham, J. R. King.

Tenn., Memphis—C. M. Jacobson & Co., First Natl. Bank Bldg., developing Magnolia Oaks subdivision, 6 acre tract on McLemore Ave.; install streets, sewers, sidewalks, white way system.

Tenn., Knoxville—H. B. Field, North Hills Co., develop subdivision; install streets, extend lighting system, water, etc.

Tenn., Memphis—John Halliburton, 1695 Autumn St., acquired 2680 acre plantation.

Tex., Beeville—Lon Messer, Bobstown, representing purchasers of 6250 acre tract, plans developing for colonization.

Tex., Cisco—J. B. Morrison, and I. A. Clements, acquired 600 acres in West Texas; plan improvements.

Tex., Clarendon—Bob Slaughter, 3501 Beverly Dr., Dallas, and R. L. Slaughter, Lubbock, acquired 35,997 acres in Briscoe and Hall counties.

Tex., Houston—Post Oak Realty Co., capital \$20,000, incorporated; J. L. Jones, Cotton Exch. Bldg.

Tex., Houston—South Acres, Inc., Harry V. Baker, Post-Dispatch Bldg., acquired 800 acres on Chocolate Rd.

Tex., Houston—W. H. Irvin, 106 Avondale St., acquired 112 acres on LaPorte-Strange Highway.

Tex., Houston—J. G. Miller, Electric Bldg., acquired 40 acres on south side of Buffalo Bayou.

Tex., San Antonio—City engaged John Bredemus to plan golf course in Riverside

Park; install special watering system; build club house.

Tex., San Antonio—Fredericksburg Road Hills Development Co., incorporated; Dave Lehr, 301 Granada St.

Tex., Waco—Dr. E. C. Brannon, 1112 Amicable Bldg., acquired 87 acre pecan grove on Bosque.

Tex., Waco—McLendon Realty Co., Inc., capital \$100,000, chartered; George R. and A. F. McLendon.

Va., Craig Healing Springs—The Springs Development Corp., capital \$100,000, incorporated; O. L. Huffman, 1117 Chapman Ave., S. W., Roanoke.

Va., Norfolk—Boush Street Realty Corp., capital \$15,000, incorporated; George W. Banks, Dickson Bldg.

Va., Norfolk—Park Manor, Inc., capital \$95,000, incorporated; C. R. Carver, 1114 Westmoreland Ave.

Va., Richmond—Broadwell Corp., incorporated; Henry S. Wallerstein, Travelers Bldg.

Va., Staunton—Wilton Farms, Inc., capital \$15,000, chartered; R. G. Neon.

W. Va., Charleston—Vincent Realty Co., capital \$100,000, incorporated; Roy B. Rollins, Peoples Bank Bldg.

W. Va., Charleston—Mercantile Land Co., incorporated; J. C. Morrison, Jr., Kanawha Valley Bank Bldg.

W. Va., Clarksburg—Ben E. Hamilton, 205 N. Broadway, Wm. G. Brand, Natl. Bk. of W. Va. Bldg., both Wheeling, interested in development of cemetery, 30 acres on Clarksburg-Buckhannon Highway; construct mausoleum, etc.; expend \$150,000.

Lumber Enterprises

Ark., Jonesboro—R. L. Muse Lumber Co., R. L. Muse, rebuild burned plant.

La., Shreveport—Robinson Slagle Lumber Co., 1401 Abbie St., rebuild burned plant; 1-story and basement, 60x180 ft.; M. D. Weeks, Archt., 816 Hope St., preparing plans; receives bids soon.

Miss., Vicksburg—Mississippi Lumber Co., R. F. Evans, acquired Vicksburg Lumber Co.

N. C., Wilson—Williams Lumber Co. acquired W. W. Simms Co.'s sawmill, planing mill and millwork plants.

S. C., McCormick—McCormick Manufacturing Co., capital \$10,000, incorporated; J. J. Dorn, G. J. Sanders, Jr.; manufacture timbers and timber products.

Tex., Bryson—Clayton-Mitchell Lumber Co., capital \$25,000, incorporated; H. W. Mitchell, C. P. Clayton.

Tex., Galveston—Moore Lumber Co., capital \$150,000, incorporated; K. Moore, N. S. Lufkin, 2722 H St.

Tex., Lubbock—Shelton-Oglesby Lumber Co. changing name to Shelton Lumber Co.

Va., Culpeper—Madison Timber Corp., incorporated; Matthew L. Rue, 1508 H St., N. W., Washington, D. C.; Charles D. Rue, Culpeper.

Metal-Working Plants

Tenn., Alcoa—United States Aluminum Co., R. L. Streeter, V. Pres. and Gen. Mgr., Pittsburgh, Pa., subsidiary of Aluminum Company of America started work on \$2,000,000 rolling mill for manufacture of strong aluminum alloy, sheets and slates; building to be 100x500 ft., steel frame and brick; initial capacity to be approx. 1,000,000 lb. of sheet metal monthly, with provisions for expanding capacity to 3,000,000 lb. monthly; install modern rolling mill machinery, motor driven, roller bearing; initially use 15,000 h. p., furnished by Calderwood dam; plant to be ready for operation in fall; employ approx. 500; E. C. McSpadden, Mechanical Engr.; J. W. Schriver, Ch. Constr. Engr.; work by company's forces.

Mining

Ky., Frankfort—Krueger Development Co., capital \$110,000, incorporated; W. A. Batten.

Ky., Paducah—Kentucky Consolidated Stone Co., A. J. Hoffman, Pres., Louisville, acquired Ohio River Sand & Gravel Company of Paducah.

Md., Havre de Grace—Standard Lime and Stone Co. plans improvements to plant to cost \$100,000.

Tex., Llano—L. W. Stolz, 1085 Magnolia St., and W. O. Bowers, Goodhue Bldg., both Beaumont, and C. R. Stolf, Lagrange, acquired Dealers' Granite Corp., L. H. Baldwin, Mgr.

Va., Norfolk—Ladd Mountain Corp., capital \$200,000, incorporated; William H. White, 201 F St., Lynchburg.

W. Va., Bluefield—Wesley Corp. received charter authorizing company to issue \$50,000 capital stock; S. W. Freeman, Bramwell; A. G. Cox, Bluefield.

Miscellaneous Construction

La., New Orleans—Mississippi River Comm., U. S. Engr., Fourth Mississippi River Dist., River Front and Burdette St., completed surveys for Bonne Carre and New Madrid floodways and general plans have been approved; work involves expenditure of approx. \$8,000,000; contracts to be let as soon as rights of way are secured. 12-20

Md., Cumberland—City considering issuing \$80,000 bonds for incinerator. See Financial News.

Miss., Greenwood—City votes Jan. 29 on issue of \$50,000 bonds for construction of natatorium; R. J. Moor, Archt. 1-3

W. Va., Charleston—Chesapeake & Ohio Ry. Co. See Buildings Proposed—Railway Stations, Sheds.

Miscellaneous Enterprises

Ala., Gadsden—Goodyear Tire and Rubber Co., Akron, Ohio, let contract to McClintic-Marshall Co., Pittsburgh, Pa., for 2789 tons of steel for unit of tire manufacturing plant; plans complete; reported, receives bids Jan. 19; following estimating on general contract: A. K. Adams & Co., 542 Plum St., N. W.; C. A. D. Bayley & Co., Inc., Citizens and Southern Bk. Bldg., both Atlanta, Ga.; Hunkin-Conkey Co., Cleveland, Ohio; Hughes Foulkrod Co., Schaff Bldg., Philadelphia, Pa.; Batson-Cook Co., West Point, Ga.; Algernon Blair, 11 S. Lawrence St., Montgomery, Ala.; M. Gwin Construction Co., Union Indemnity Bldg.; Doullut & Swin, Queen & Crescent Bldg., both New Orleans, La.; Foster & Creighton Co., Fourth and First Bldg., Nashville, Tenn.; Clemmar & Noah Construction Co., Akron, Ohio; Jas. Stewart & Co., 17 E. 42nd St., New York City; Lundooff-Bicknell Co., Kelgh Bldg., Cleveland, Ohio; Stone & Webster Engineering Corp., 49 Federal St., Boston, Mass.; Gauger Korsmo Construction Co., Fidelity Bk. Bldg., Memphis, Tenn. 1-3

D. C., Washington—Joseph Phillips & Co., Fred A. Spicer, Pres., 10 Wholesale Row, erect \$250,000 sausage plant, Fifth St. and Florida Ave., N. E.; 2-story, one section with additional story to provide rest rooms and dining hall for employees; 200x125 ft.; install new machinery throughout; specifications now being drawn; Henschien & McClaren, Archts., 1637 Prairie Ave., Chicago, Ill.

Fla., Clewiston—Celotex Co., B. G. Dahlberg, Pres., 645 N. Michigan Ave., Chicago, Ill., reported, start next year on construction of celotex plant, with annual capacity of 1,000,000,000 sq. ft. of celotex.

Fla., Jacksonville—Airway Electrical Appliance Corp., Toledo, Ohio, establish branch plant for assembling and distributing products in Florida and South Georgia; S. A. Hefft, to be branch manager.

Fla., St. Petersburg—Jack E. Dadswell, Pres., Financial Journal Corp., acquired Tourist News, magazine, from Lassing Publishing Co.

Ga., Columbus—Tom Huston Peanut Co., Walter A. Richards, let contract to Williams Lumber Co., Inc., for \$35,000 plant. 11-8

Ga., Macon—Snow Dry Cleaning Co., capital \$15,000, incorporated; William A. Snow, 538 Washington Ave.

Ga., Savannah—Paints—Toplyfe Co., incorporated; Paul H. Zipples, 205 E. 48th St.

Ky., Bowling Green—Bowling Green Coca-Cola Bottling Works, capital \$15,000, incorporated; C. C. Clark.

Ky., Louisville—Following have subcontracts in connection with \$200,000 tobacco plant under construction for Brown & Williamson Tobacco Corp., Winston-Salem, N. C.: Excavation, Henry Bickel Co., Garden and Walnut St.; plumbing and sewer system, Crescent Plumbing and Heating Co., 127 W. Jefferson St.; cut stone, Peter & Burghard Stone Co., 13th and Maple St.; glass, Pittsburgh Plate Glass Co., 16th and Main St.; brickwork, Pearl M. Cox, R. R. 18, Anchorage, Ky.; steel sash, Detroit Steel Products Co., 2250 E. Grand Blvd., Detroit, Mich. 1-3

Ky., Louisville—Chemicals—Votteler-Lee Co., Inc., chartered; W. Oscar Votteler, 2240 Saratoga Drive.

Ky., Savoy—Southeastern Construction Co., capital \$50,000, incorporated; Walter Tye, L. O. Coleman.

La., New Orleans—Celotex Co., B. G. Dahlberg, Pres., 645 N. Michigan Ave., Chicago, Ill., reported, immediately begin construction of \$500,000 second unit to celotex plant across river from New Orleans; unit to give plant total of seven machines, bringing daily output up to 1,500,000 bd. ft. of building material; reported, preparing plans for erection of new power plant to cost approx. \$1,000,000. 12-27

La., New Orleans—Southern Hat Co. install machinery for manufacturing men's hats at wholesale establishment, 210-212 Chartres St.

La., New Orleans—New Orleans Fireworks Co., Inc., capital \$10,000, chartered; Geo. Bagnetto, 925 State St.

La., New Orleans—Spray Printing Corp., capital \$10,000, incorporated; Malcolm B. Moody, 2128 S. Gayoso St.

La., New Orleans—Hub Drug Co., Inc., capital \$95,000, chartered; Roger L. Farnet, Jr., 2724 Bell St.

Md., Baltimore—White Construction Co., 26 S. Calvert St., incorporated; Frank R. White.

Md., Baltimore—Procter & Gamble Co., S. M. Manley, Engineering Supt., Cincinnati, Ohio, advises receiving bids through Buying Dept. until Jan. 14 on 400 ft. of bulkhead at Locust Point, in connection with \$4,000,000 soap plant. 1-3

Md., Baltimore—Milburn Sales Corp. and Milburn Paint Spray Corp. incorporated, to sell number of products manufactured by Alexander Milburn Co., 1424 W. Baltimore St.; Alexander F. Jenkins, Edward P. Boyer.

Md., Hancock—Hancock Realty Co., H. N. Rosen, Pres., erect \$20,000 garment factory, receiving bids; A. J. Klinkhart, Archt., Kohler Bldg., Hagerstown.

Md., Hancock—Jacobs Brothers, 1501 Gullford Ave., Baltimore, and 40 E. 34th St., New York, mfrs. of nurses' uniforms, establish plant, temporary location, McAfee Bldg.; Chamber of Commerce arranging for erection of new building; bids soon to be received.

Md., Silver Springs—Construction—Geary-Johnson Co., Inc., chartered; John J. Geary, Raymond T. Johnson.

Mo., Boonville—Boonville Outdoor Advertising Co., capital \$10,000, incorporated; J. G. Helmburger, Jefferson City; A. J. Duck, Columbia.

Mo., Cape Girardeau—Cape Girardeau Sand Co., capital \$20,000, incorporated; Peter H. Deimund, Myrtle Cummins.

Mo., Joplin—Southwestern Creameries, Inc., chartered; John W. McAllister, 534 N. Jackson St.

Mo., Kansas City—Stein Furniture Co., incorporated; Allen H. Rush, 3710 Flora Ave.

Mo., Kansas City—Jordan Fabric Co. erect new building, 2920 McGee Trafficway; manufactures seat covers for motor cars, etc.

Mo., North Kansas City—Branch of Kansas City—Mid-West Chandler Co., capital \$150,000, incorporated; James J. Lefkowitz, Paul D. Wilson.

Mo., St. Louis—Beverly Dresses, Inc., 1105 Washington St., capital \$20,000, incorporated; Fred Kling, Nathan Shatz.

Mo., Warrensburg—Warrensburg Bottling Works, Inc., chartered; George K. Mackie, Kansas City, H. H. Testerman, Lawrence, Kan.

N. C., Charlotte—Glasgow Refrigeration Co., capital \$100,000, incorporated; Thomas M. Glasgow, 2189 E. Fifth St.

N. C., Cherryville—Cherryville-Hall Hardware Co., Inc., capital \$25,000, chartered; F. N. Hall.

N. C., Lexington—North Carolina Candy Co., J. L. Young, Pres., rebuild burned plant.

N. C., Winston-Salem—Taylor and Long Co., Inc., move extract manufacturing plant from Charlotte; manufacture extracts for soft drinks in new plant.

Oklahoma—Southwestern Stores, Inc., 111 E. 14th St., Tulsa, operating chain grocery stores with meat markets in Oklahoma and surrounding territory, reported, acquired Blue Front group of stores, in Seminole, Shawnee and Maud. 1-3

Okla., Okmulgee—Gall Bros. Co., Frank C. Ball, Muncie, Ind., acquired Pine Glass Corp., W. B. Pine, Pres.; rebuild plant furnaces; double storage facilities.

S. C., Cheraw—Cheraw Insurance Co. incorporated; G. W. Duvall.

S. C., Greer—Insurance—Ratterree-Hawkins & Co., capital \$15,000, incorporated; W. M. Hawkins, John Ratterree.

Tenn., Ducktown—Tennessee Copper & Chemical Corp., 61 Broadway, New York, plans issuing \$5,000,000 6% convertible bonds; proceeds to retire present issue of convertible bonds of which more than \$400,000 have been converted into stock; to provide additional working capital and to make improvements and provide equipment for expanding.

Tenn., Morristown—Charles Trammel and Mrs. Charles Trammel acquired Morristown Sun, weekly newspaper.

Tex., Dallas—Standard Cover Co., capital \$25,000, incorporated; C. H. Read, 4927 Junius St.

Tex., El Paso—Nichols Copper Co., C. W. Nichols, Pres., 25 Broadway, New York City, reported, let contract to Ingalls Iron Works Co., Birmingham, Ala., for 3,000 tons of structural steel, for copper refinery. 12-20

Tex., Fort Worth—United States Electric Appliance Corp., J. A. Cross, Pres., move plant here from Denver, Col.; company manufactures vulcanizers, hot water heaters and storage water heaters.

Tex., Jacksonville—Chamber of Commerce, G. S. Blankenship, Pres., interested in establishing milk condensary.

Tex., Mercedes—Valley Industries, Inc., conducting bottling business, remodeling plant to allow room for making candies.

Tex., Round Rock—T. F. Harwell acquired Round Rock Leader, newspaper.

Tex., San Antonio—Southwestern Engraving Co., 206½ W. 11th St., Fort Worth, acquired Mills Engraving Co.

Tex., Snyder—Snyder Produce Co. erect poultry plant, install butter and creamery machinery and cold storage plant; plans immediately begin construction.

Tex., Stephenville—Clements & Higgs, publishers of Stephenville Tribune, acquired Hico News-Review.

Tex., Waco—Southwest Newspapers, Inc., incorporated; E. S. Fentress, 2724 Austin Ave.

Tex., Waco—McLendon Hardware Co., Inc., capital \$50,000, chartered; George K. McLendon, 1920 Austin Ave.

Tex., Waco—Borden Company of Texas, capital \$200,000, incorporated; Union N. Bethell, Wallace D. Strack. 1-10

Tex., Waco—Borden Co., 350 Madison Ave., New York, let contract to H. K. Ferguson Co., Cleveland, Ohio, for condensed milk plant. 1-10

Va., Charlottesville—Columbia Cedar Polish Co., Inc., chartered; Ward C. Haffner, Hanover; A. B. Kennedy, Charlottesville.

Va., Richmond—Engineering—R. Stuart Royer, Inc., capital \$25,000, chartered; R. Stuart Royer, Electric Bldg.

Va., Richmond—United States Dairy Products Co., 1500 Walnut St., Philadelphia, Pa., acquired control of Richmond Dairy Co.

Va., Richmond—Richmond Dairy Co., 314 N. Jefferson St., issuing \$500,000 first mortgage 6% gold bonds, through J. A. W. Iglehart & Co., 102 St. Paul St., Baltimore, Md.; company incorporated under laws of Virginia and will acquire the physical assets, business and good will of present operating company of similar name; engaged in collection, pasteurization and distribution of milk, cream, butter and other dairy products in Richmond, also distributes dairy products to other southern communities; proceeds of issue to provide part of funds for acquisition of properties.

Motor Bus Lines and Terminals

Ala., Gadsden—Alabama Power Co., Birmingham, granted 30 year franchise to operate passenger bus line to plant site of Good-year Tire and Rubber Co.

Ala., Wedowee—East Alabama Coach Line applied to Public Service Comm. for permission to operate as motor carrier for transportation of freight on regular route between here and Roanoke.

Okla., Muskogee—Wardway Lines, Ward Faulkner, 1230 W. Okmulgee St., acquired Rainbow Bus Lines, operating between Muskogee and Fort Smith; will place large buses in operation on new line.

Okla., Oklahoma City—Byrd & Vaughn applied to Corporation Comm. for permission to operate bus line intrastate and interstate between Oklahoma City and Fort Smith by way of Meeker, Prague, Okemah, Henryetta, Dewar, Checotah, Warner, Vian, Sallisaw and Moffett.

Tex., El Paso—Paul McCutcheon applied to Railroad Comm. for permission to operate an interstate bus line from El Paso to Rosewell, N. M.

Tex., El Paso—Southern Pacific Motor Transportation Co. applied to Motor Transportation of Texas Railroad Comm. for permission to operate bus line between here and Los Angeles, Calif.

Va., Richmond—R. F. & P. Transportation Co., capital \$300,000, incorporated; Eppa Hunton, Jr.

Motor Cars, Garages, Filling Stations

Ark., Little Rock—Hotel Marlon, H. Grady Manning, Mgr., erect fireproof garage Louisiana St. to cost approx. \$60,000; 1-story, brick.

Fla., Jacksonville—Firestone Tire and Rubber Co., Akron, Ohio, receives bids about Jan. 20 on revised drawings for building to

contain general branch offices, warehouse and service station; 46,000 sq. ft. floor space; 3 stories, mill construction; Mark & Sheffall, Archt., Clark Bldg. 12-6

Ga., Atlanta—Grant-Harris Motor Co., care Lincoln Sales Co., 435 Spring St., N. W., completed plans for \$75,000 automobile building, W. Peachtree St.; following contractors estimating: Grahn Construction Co., The Flagler Co., Smith & Williams, all Red Rock Bldg.; J. S. McCauley & Co., Converse-Myers Co., Norwood Griffin Co., all Bona Allen Bldg.; Carr Construction Co., Candler Bldg.; Pittman Construction Co., Rhodes Bldg.; Pringle & Smith, Archts., Norris Bldg. 12-27

La., Crowley—Carl A. Meyer erect brick auto building, W. Second St. and Ave. F, to be occupied by Meyer Chevrolet Co.

La., New Orleans—707 Tire Service, Inc., capital \$15,000, chartered; C. R. Tidwell, 107 Morris St., Monroe.

La., New Orleans—557 Tire Co., Inc., capital \$50,000, chartered; M. B. Lemarie, Tokalon Pl.

Md., Baltimore—Kelbe Motor Co., 131 W. North Ave., incorporated; Charles M. Kolbe.

Miss., Greenville—England Motor Co., Frank A. England, Pres., erect automobile building, Washington Ave. and Harvey St.

Miss., Jackson—Walthall Hotel Co., E. O. Spencer, Sec.-Treas., Miss. Fire Bldg., erect \$75,000 storage garage, Capitol St.; 3 or 4 story; provide space for 150 cars.

Mo., Kansas City—Griffin-Poynter Chevrolet Co., capital \$50,000, incorporated; Emery C. Poynter, 6164 Rockhill Rd.

Mo., North Kansas City (Branch of Kansas City)—Totam-Hensley Motor Co., Inc., chartered; George Totman.

Mo., Springfield—Texas Oil Co. acquired site, National Ave. and St. Louis St., erect \$12,000 service station.

N. C., Henderson—S. and F. Motor Corporation of Henderson, capital \$25,000, incorporated; Robert E. Satterwhite, Hamle O. Falkner.

N. C., Shelby—D. Z. Newton let contract to Tom Ramsey and Sons for \$25,000 fireproof garage, Warren St.; 2-story, 50x165 ft.; to be occupied by Crawford Chevrolet Co.; material now being placed on ground and construction to begin shortly.

N. C., Woodland—Woodland Motor Company, capital \$50,000, incorporated; J. P. Brown, George; L. C. Copeland, Woodland.

Okla., Carnegie—Carnegie Motor Co., capital \$20,000, incorporated; G. H. Davisson, Helen Rogers.

Okla., Cherokee—Ray Davis Motor Co., incorporated; Raymond W. Davis.

Okla., Enid—Square Deal Tire Co., Inc., Main and Washington St., excavating for \$27,000 superservice station and battery building; 1-story and basement, 50x15 ft., conc. floors, asbestos roof; H. C. St. John, furnish portion of equipment; R. W. Shaw, Archt., Masonic Temple. See Want Section—Machinery and Supplies. 11-22

Okla., Tipton—J. D. Nicholson let contract to A. H. Krause, Frederick, for garage and show room, W. Grand Ave.; brick and comp. roof, 50x140 ft., 1-story, conc. floors; cost \$12,000 without equipment. See Want Section—Building Material.

Okla., Tulsa—A. W. Pegford erect 1-story, brick building, South Boston Ave. and E. 14th St., to be occupied by Miller Tire Co. and Rasco Chevrolet Service Co.

Tenn., Cookeville—West Side Motor Co. incorporated; L. T. Stone, J. L. O'Dell.

Tenn., Nashville—A. E. Parrish & Co., 115 Ninth Ave., N., capital \$40,000, incorporated; A. E. Parrish; automobile accessories.

Tenn., Nashville—Connor Tire Co., Mrs. Myrtle S. Connor, Church St. and 14th Ave., let contract to M. & Q. Construction Co., 68 Arcade, for brick office with open shed, at \$13,560; 1-story; work begun; Donald W. Southgate, Archt., 1103 Nashville Trust Bldg. 1-10

Tex., Breckenridge—Humble Oil Co. erect \$15,000 filling station.

Tex., Big Spring—Deats Estate 'acquired site, Scurry St.; erect garage, 100x140 ft.

Tex., Corpus Christi—Broadway Properties Co., Inc., let contract to J. P. Miller, Edinburg, for \$75,000 ramp garage, near Nixon Bldg.; 100x130 ft. 1-10

Tex., Dallas—C. E. Briggs, 3511 Fairmount St., erect filling station, Live Oak and Carroll Ave.

Tex., Fort Worth—North Side Chevrolet Co., Inc., capital \$28,000, chartered; A. N. Teague, 2327 Marigold St.

Tex., Harlingen—T. H. Thomas let contract to W. H. Burk, for \$12,000 garage and filling station; W. R. Varner, Archt. 1-10

Tex., Hearne—Stephenson Motor Co. changing name to Heyser Motor Co.

Tex., Houston—White-Kattache Building Co. erect \$62,000 auto building, 1401 Travis St.

Tex., Mercedes—Brooks Motor Co. erect \$10,000 filling station; 1-story, brick, conc. and steel, 48x68 ft., comp. roof; plans complete; W. R. Varner, Archt., Harlingen.

Railways

Florida—Tampa and Gulf Coast Railroad, leased and controlled by Seaboard Air Line Ry. Co., L. R. Powell, Jr., Pres., Norfolk, Va., authorized by Interstate Commerce Comm. to issue \$600,000 improvement and extension mortgage 25-year 6% gold bonds; deliver to Seaboard Air Line at par in satisfaction of indebtedness to that company.

Florida—Florida East Coast Ry. Co., H. N. Rodenbaugh, V.-Pres., St. Augustine, constructing 10-mi. extension of Okeechobee-Miami Branch.

Ky., Louisville—Interstate Commerce Comm. tentatively approved acquisition of Louisville, Henderson & St. Louis Railway Co. by Louisville & Nashville R. R. Co., W. R. Cole, Pres.

Ky., Louisville—Louisville & Nashville Railroad Co., H. T. Shanks, Pur. Agt., advises regarding contract for rail, awarded to Tennessee Coal, Iron & Railroad Co., Birmingham, Ala., total of 61,700 gross tons of new rail, 100 lb., delivery Nov., 1928, to Apr., 1929, inclusive. 1-3

Mo., Hornersville—St. Louis Southwestern Ry. Co., Daniel Upthegrove, Pres., St. Louis, applied to Interstate Commerce Comm. for permission to construct line from Gideon to Deering, 20 mi. and from Hornersville to Leachville, Ark., 11 mi.; also to acquire control of Gideon & North Island Railroad; Deering Southwestern Ry. and Blytheville, Leachville & Arkansas Southern Railroad Co.

Mo., St. Louis—Missouri-Pacific Railroad Co., L. W. Baldwin, Pres., reported, ordered 1000 automobile cars from Mount Vernon Car Manufacturing Co., Mount Vernon, Ill.; 100 50-ton box cars from American Car and Foundry Co., St. Charles, Mo.; 130 Church St., New York; 5,000-ton stock cars from General American Tank Car Co., Merchants Bk. Bldg., Chicago, Ill.; 500 70-ton hoppers from Standard Steel Car Co., Chicago, Ill., and Frick Bldg., Pittsburgh, Pa.; 60 30-ton cabooses from American Car and Foundry Co.

Mo., St. Louis—Interstate Commerce Comm. authorized Missouri-Pacific Railroad Co., L. W. Baldwin, Pres., to issue \$15,750,000 first and refunding mortgage 5% bonds, series G, to be pledged and repledged as collateral security for short term notes.

Tenn., Etowah—Louisville and Nashville Railroad Co., W. H. Courtenay, Ch. Engr., Louisville, extend electric block system from Etowah to Cartersville, involving approx. \$275,000; Purchasing Agent will purchase material needed and work to be done by company's forces.

Texas—Atchison, Topeka and Santa Fe Railway Co., W. B. Storey, Pres., Chicago, Ill., reported plans constructing branch line to cost \$4,100,000 from Pampa, Tex., to Cheyenne, Okla., 80 mi.; leaves main line at Pampa and will extend east across Gray and Wheeler Counties into Roger Mills County, Okla.; line to connect with Clinton, Oklahoma and Western Railway.

Texas—St. Louis Southwestern Ry. Co., Daniel Upthegrove, Pres., St. Louis, reported, plans \$5,000,000 rehabilitation program in 1929; includes laying heavy steel, ballasting and construction of new yards; line between Fort Worth, Dallas and Sulphur Springs to be rebuilt, including laying of heavy rail and use of crushed rock ballast.

Texas—St. Louis, San Francisco and Texas Ry. Co., subsidiary of Fort Worth and Rio Grande Ry. Co., J. M. Kurn, Pres., St. Louis, Mo., construct line from Vernon, in Wilbarger County, to Seymour, in Baylor County, where it will connect with Gulf, Texas and Western Railway.

Tex., Lane City—Interstate Commerce Comm. authorized Atchison, Topeka and Santa Fe Railway Co., G. W. Harris, Ch. Engr. System, to construct line from Lane City to Guy; construction will be handled by F. Merritt, Ch. Engr., Gulf, Colorado & Santa Fe Railway, Galveston; probably receive bids in near future; construction to begin late in spring. 12-13

Tex., Seymour—Gulf, Texas and Western Ry. Co., W. F. Knox, Receiver, Dallas, authorized to extend line from Seymour through Baylor, Knox and Foard Counties to Paducah, in Cottle County, there connecting with line of Quannah, Acme and Pacific Railway. 1-3

Va., Hopewell—Surry, Sussex and Southampton Ry., F. E. Waters, Pres., Baltimore, reported, applied to Interstate Commerce

Comm. for permit to build standard gauge line from Franklin to Hopewell, connecting with Seaboard Air Line Ry.

Roads, Streets and Paving

In connection with LAND DEVELOPMENT large sums are expended for roads, streets, paving and sidewalks. Details will be found under that classification.

Proposed Construction

Ala., Tarrant, Birmingham—City, Wallace Wells, Clk., plans additional paving. See Financial News.

Ark., Jonesboro—State Highway Comm., Little Rock, considering conc. pavement from Nettleton to Craighead-Poinsett County line, north of Truman.

Fla., Miami—City Commrs., H. E. Ross, Clk., receives bids Jan. 21 to pave S. E. Second St., north approach to bridge: 2300 sq. yd. grading, pit rock base, cold asphalt surface, 830 lin. ft. standard curb and gutter.

Fla., Orlando—Orange County Commrs., L. L. Payne, Chmn., receives bids Feb. 11 for 19 hard surface roads, totaling 31.3 mi., costing about \$600,000; Dist. No. 1—75 mi. Wittenstein road; 1.25 mi. Fairville road; 2.50 mi. E. Lake Barton; .50 mi. Michigan Ave. extension; No. 2—1 mi. Wewiwa Springs road; 1 mi. Dudley Ave. road; .75 mi. Earle Ave.; 1.25 mi. Old Dixie; .75 mi. Morell Hill; 1.50 mi. Eaden Park; Dist. No. 3—1.50 mi. Marshall Farms; 3 mi. Lake Shore; 3.25 mi. Vineland and Osceola County lines; Dist. No. 4—75 mi. Bumby Ave. and Michigan Ave. and Conway road; .75 mi. Kaley Ave.; 2 mi. Taft Hawassee road, west from Dixie; 3.30 mi. Golden Rod; Dist. No. 5—3 mi. Golden Rod; 2.50 mi. Taylor Creek; A. L. Wright, Supt. of Roads and Bridges.

Georgia—State Highway Bd., Atlanta, plans completing paving Highway 38, Oglethorpe Highway, across southern end of Georgia, from Bainbridge to Savannah, via Waycross.

La., Alexandria—Louisiana Highway Comm., Baton Rouge, receives bids Jan. 29 for 6.753 mi. gravel, Camp Beauregard-Artillery Range Highway, Rapides Parish, from point on Alexandria-Columbia Highway about 5 mi. north of Alexandria to Artillery Range; W. H. Norckauer, Acting Highway Engr.

Ky., Paducah—McCracken County Road Dept., Col. Ben Weille, Highway Commr. of Fiscal Court, started widening North Eighth St., to 30 ft., gravel surfacing, and raising street level to meet new Paducah-Brookport Bridge approach; Will Warren, County Road Engr., in charge.

Ky., Paducah—State Highway Comm., Frankfort, plans widening Paducah-Mayfield road from Paducah city limits to Lone Oak.

La., Alexandria—Rapides Parish Police Jury plans expending \$75,000 to gravel 2 highways in Ward 8: From S. C. Melady place to Bayou Rapides, parallel north side of bayou to Lamothe; from Rapides school house on Bayou Rapides, near Robinson place to Rapides Station, on Red River; will sell bonds.

La., New Orleans—Southern Ry. Co., J. B. Akers, Asst. to V.-P., Commr. of Public Utilities, Wm. T. Hall, and Bryson Vallas, City Engr., considering grade raising or lowering at Canal Blvd., and City Park, and paving various crossings, etc.; total cost \$250,000 to \$500,000.

La., Shreveport—City Commrs. received low bid from R. O. Marks, 1241 Dalzell St., \$20,574, for 5,000 cu. yd. paving on Market St. viaduct.

La., Vidalia—Concordia Parish Police Jury may pave highway from Vidalia to Ferriday.

Md., Aberdeen Proving Ground—Construction Quartermaster receives bids Feb. 12 for 22,800 lin. ft. bit. macad. roadway, with excavation, grading, draining, etc., at Aberdeen Proving Ground.

Md., Baltimore—City, Bd. of Awards, receives bids Jan. 23 to grade, curb and pave with 6050 sq. yd. sheet asphalt and 2500 sq. yd. granite block on conc. base, on streets in Cont. No. 500; Nathan L. Smith, Highways Engr.

Md., Frederick—Frederick County Commrs. considering 1½ mi. stone road from Harry Krantz's place to Shookstown School; 1½ mi. "two-to-one" road, from Jefferson State road, at southeast end of Petersville, to Olive School; Poffinberger & Mause, Myersville, have contract to furnish stone for this road.

Md., Hagerstown—City, Reuben Muzey, Mayor, plans completing Memorial Blvd. See Financial News.

Miss., Ashland—Benton County will build highway east and west across upper end of county, connecting with Highway No. 15.

Miss., Bay St. Louis—City Comm. receives bids, probably in Feb. for approaches on 6 streets abutting on recently paved Front St.

Miss., Jackson—City, J. J. Halbert, Engr., will complete plans and receive bids soon for sidewalks, gutters, curb, water and sewers on Mississippi, Madison, Clifton St.

Miss., Lexington—City, C. A. Glover, Clk., plans graveling approach to local cemetery, and areas surrounding entrances to grounds.

Miss., McComb—City, B. E. Butler, Clk., contemplates paving New York, Howe, Clarke and Fifth St.; Henry A. Mentz, Engr., City National Bank Bldg., Hammond, La.

Miss., Port Gibson—City plans conc. curbs and gutters on Market and Carroll St.

Miss., Senatobia—City, Bd. of Aldermen and Mayor, contemplate extending pavement on North Main St.; improving conc. streets.

Mo., Carthage—State Highway Dept., Jefferson City, plans 20-ft. conc. slab for Highway No. 71, between Carthage and Jasper, and 36-ft. roadway; George L. Clark, Div. Highway Engr.

Mo., Independence—Jackson County Court, Judge Harry S. Truman, plans expending \$180,000 to grade and pave 9 mi. Noland St. extension, from Independence to Courtney.

Mo., Kansas City—City, Matthew S. Murray, Dir. of Public Works, plans letting contracts for 8-in. conc. paving on Washington St., Norton, Flora, Tracy and Indiana Ave. and Broadway.

Mo., Kansas City—City, Matthew S. Murray, Dir. of Public Works, plans grading 4 avenues and streets, including Bellefontaine, Ewing and Flora Ave. and Forty-fifth St.; installing 2 lateral and sanitary sewers in 3 districts.

N. C., Charlotte—City, Marion Redd, Mayor, plans widening East Fourth St., between College St. and Sugaw Creek.

N. C., Lumberton—Robeson County Road Bd. plans 20 mi. road from Hoke County to Bladen County line, near Duart, through Lumberton Bridge, Rex and St. Pauls.

N. C., Wilmington—New Hanover County Commrs. plan hard surfaced road along Masonboro Sound, from Grainger's Point road to Perviance Creek.

Oklahoma—State Highway Comm., Oklahoma City, received low bids for 26 roads and 10 bridges, totaling \$3,000,000; Muskogee County—2.5 mi. brick surface, Highway 73, Brevell & Hamblin, \$66,655; 2.5 mi. conc., Highway 64, Ellis & Lewis, Surety Bldg., Muskogee, \$59,363; Kingfisher County—6.38 mi. grade, drain, Highway 81, Hennessey to Diver, Asplund Construction Co., \$12,503; Cleveland County—6.65 mi. conc., Highway 266, west of Meeker, T. L. James & Co., Ruston, La., \$144,566; Murray County—5.36 mi. asphalt resurface, Highway 77, south of Davis, Western Paving Co., Petroleum Bldg., Oklahoma City, \$108,200; Creek County—5.55 mi. conc., Highway 66, Tom Collins, Cushing, \$13,255; Oklahoma County—4.5 mi. grade, drain, Highway 66, J. K. Maxwell, Tulsa, \$55,678; 4.5 mi. conc., Highway 66, of Arcadia, Bert Brooks, 2115 W. 18th St., Oklahoma City, \$90,635; Noble County—3.97 mi. conc., Theodore Gudgel, Stillwater, \$77,252.

In Osage County—4.99 mi. conc., Tom Collins, \$112,532; Beckham County—76 mi. conc., American Paving Co., Omaha, \$20,087; 4.18 mi. conc., American Paving Co., \$101,661; Grady County—7.92 mi. grade, Dan Sweeney, 614 W. 11th St., Oklahoma City, \$37,488; Canadian County—5.04 mi. conc., T. L. James & Co., \$113,475; Comanche County—6 mi. grade, drain, Highway 7, east and west of Caches, J. G. Witt, Grandfield, \$26,784; Kiowa-Tillman Counties—3.27 mi. grade, drain, Highway 7, Dan Sweeney, \$15,641; Pottawatomie County—3.38 mi. grade, drain, Highway 18, south of Tecumseh, J. S. Wade & Son, \$18,337; Grant County—2 sections, 5 mi., conc., Highway 1, north of Medford, T. L. James & Co., \$106,883; McIntosh County—2 sections, 8 mi. grade, drain, Highway 266, west of Choctah, Ellis & Lewis, \$25,763.

In Okfuskee County—3.7 mi. conc., Highway 75, Weleetka, south, O. S. Maxey, Durant, \$79,107; Haskell County—5.5 mi. grade, drain, Highway 9, Keota, east, Ellis & Lewis, \$23,190; Guthrie County—2 sections, 3.96 mi. conc., Highway 33, Guthrie to Coyle, Tom Collins, \$90,650; Custer County—2 sections, 9.17 mi. grade, drain, Blackburn & Rimby, Healdton, \$58,933; Washita County—grade, drain, Blackburn & Rimby, \$9,686; Bridges: Oklahoma County—bridge, Geo. H. Yeokum, 519½ W. Main St., Oklahoma City, \$9,090; bridge, Jim Beatty, Oklahoma City, \$42,910; Canadian County—bridge, T. C. Ottinger, Hinton, \$13,840; Comanche County—bridges, Stephens County Construction Co., Marlow, \$39,174; Pottawatomie County—bridge on State Highway No. 18, Whitson & Kirby, Ardmore, \$37,577; McIntosh County—2 bridges west of Choctah, Highway No. 266,

Altman Rogers Co., Oklahoma City, \$20,080; Custer County—bridges, Blackburn & Rimby, \$29,984. 12-6

S. C., Georgetown—State Highway Comm., Columbia, received low bid from Richardson Construction Co., Charleston, \$34,331, for 11.673 mi. sand-clay Route 40, Georgetown County, from point near Sampit River to North Santee River. 1-3

S. C., Laurens—Laurens County Highway Comm., plans completing hard surfacing Highway Route No. 10, Watts' Mill to Enoree; plans paving Highway No. 2, Clinton to Kinards; also conc. bridge at Enoree, connecting Laurens and Spartanburg Counties. 1-3

Tenn., Chattanooga—City, R. Crox, Commr. of Streets and Sewers, plans widening Chestnut St., 8 ft.

Tenn., Chattanooga—City, Mayor Bass, will extend Tenth St., Market to Broad; Roger Crox, Commr. of Dept. of Streets and Sewers.

Tenn., Elizabethton—Dept. of Highways and Public Works, H. S. Berry, Highway Commr., Nashville, considering road between Fish Spring and Butler, Carter County.

Tenn., Knoxville—See Bridges, Culverts, Viaducts.

Tenn., Selmer—Wm. N. Rees, Div. Engr. of State Highway Dept., Jackson, announces, surveys are being made on Route 57, State Line road, connecting Memphis on west with Tennessee-Mississippi line and Route 5, between Selmer and Corinth, Miss.

Tenn., Sevierville—Sevier County Court appropriated \$30,800 for 2 roads leading to Cove Creek resort area of Great Smoky Mountain Colonization bureau; 10 mi. Cove Creek Canyon route, crossing Scenic Loop; 1 mi. Cove Crest trail, state lateral road.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, appropriated fund to improve 4 roads, overpass and underpass: Fort Bend County—regraveling and shouldering along conc. and asphalt surface, Highway 3, from Brazos River to Harris County line, estimated cost \$13,190; Jas. Douglas, Div. Engr.; Callahan County—8.860 mi. asphalt seal course surface, limestone base, Highway No. 1, estimated cost \$30,726; J. B. Early, Div. Engr.; Abilene—Williamson County—relocating Highway No. 2, near Round Rock 3.17 mi., including grading, draining and overpass over Missouri Pacific Ry. tracks, from Highway No. 8, near Travis County line to junction of Highway No. 2-B, estimated cost \$83,185; D. E. H. Manigault, Div. Engr., Austin; Hays County—relocate Highway No. 2, Post road, 6 mi., grade, drain, from point east of Kyle to point west of Kyle, eliminate 2 grade crossings of I. & G. N. Ry., estimated cost \$68,800; Angellina County—reconstruct underpass under H. E. & W. T. Ry. on Highway No. 26, near north city limits of Lufkin; Edward F. Maddox, Div. Engr., Lufkin.

Texas—State Highway Comm., Austin, receives bids, probably Jan. 21, for 5 roads: Cherokee County—5.948 mi. grading, draining, Highway 37, Jacksonville to point north of Cherokee County Road Dist. No. 1; G. A. Bracher, Res. Engr.; Leon County—1.854 mi. grading, draining, Highway 32, from intersection with Highway No. 43 to Freestone County line; Nagle-Witt-Rollins, County Engr.; Brazoria County—40 mi. grading, draining, high type paving, Highway 36, Fort Bend County line to Freeport, estimated cost \$800,000; E. N. Gustafson, Engr., Bay City; Wise County—449 mi. gravel base, bit. top, Highway 39, across Sandy Creek, O. W. Hunn, Engr.; Shackelford County—1.69 mi. bit. macad. on caliche and stone base, Highway 83, Jones County line to connect with Highway No. 18, estimated cost \$54,000; Jas. E. Pirie, Res. Engr.; Gibb Gilchrist, State Highway Engr.

Texas—State Highway Comm., Austin, receives bids, probably, Jan. 21 for grading and draining 3 roads: Nueces County—5.231 mi. Highway No. 16, Banquette Creek to Agua Dulce; Calvin E. Cocke, Res. Engr.; Kinney County—9.177 mi. Highway 3, Brackettville to Spofford; W. F. Hutton, Res. Engr.; Hale County—7.528 mi. Highway 28, Plainview to Floyd County line; C. L. Hasie, Res. Engr.; Gibb Gilchrist, State Highway Engr. 1-3, 1-10

Texas—State Highway Comm., Austin, receives bids Jan. 21 and 22 for 10 roads and 3 bridges: Runnels County—9 mi. conc., Highway 30, cost \$240,000; grading and draining; Nueces County—4 mi. Highway 12A, \$25,000; Hale County—30 mi. Highway 28, \$90,000; Young County—13 mi. Highway 79, \$40,000; Ellis County—8 mi. Highway 6, \$215,000; DeWitt County—7 mi. Highway 119, \$25,000; Grayson County—10 mi. Highway 91, \$80,000; Throckmorton County—14½ mi. Highway 79, \$100,000; grading, draining, bit. top; Ward County—7½ mi. Highway 82, \$125,000; Winkler County—15½ mi. High-

way 82, \$275,000; bridges: Goliad County—across Manahulla Creek, Highway 12, \$60,000; San Patricio County—across drainage canal, Highway 16, \$5000; Victoria County—across Coletto Creek, Highway 12, \$75,000; Gibb Gilchrist, State Highway Engr.

Tex., Beaumont—Jefferson County plans expending \$4,000,000 for improved highway along beach to Chambers County, paving College St. extension to Houston road, 200-ft. wide boulevard, between Beaumont and Port Arthur, other road projects; also bridge across Neches River, near Port Arthur, intracoastal canal bridge in south of county. See Financial News.

Tex., Conroe—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids Jan. 22 for .473 mi. grading from end of Spring Creek Bridge to Highway No. 19, Montgomery County; 47,560 sq. yd. excavation and borrow; J. R. Spiller, Res. Engr.; Gibb Gilchrist, State Highway Engr.

Tex., Corpus Christi—City, W. J. Smith, Street and Park Comm., considering widening Staples St.; H. L. Shaw, City Engr.

Tex., Corsicana—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids Jan. 21 for 6.783 mi. grading, draining, Highway No. 32, Streetman to Richland, Navarro County; J. W. Alger, Res. Engr.

Tex., Crockett—Houston County, Edward F. Maddox, Div. Engr., Lufkin, plans gravel and clay surfacing sections of Highways 19 and 21, estimated cost \$15,000.

Tex., Cuero—State Highway Comm., Austin, receives bids Jan. 22 for 6.907 mi. grading, draining, Highway 119, De Witt County, Yorktown to Goliad County line; 58,089 cu. yd. excavation, 48,853 lb. rein. steel; John S. Fenner, Res. Engr.; Gibb Gilchrist, State Highway Engr.

Tex., Cuero—DeWitt County, H. Seekamp, Commr., plans straightening highway between Cuero and Yoakum; eliminate 4 railway crossings.

Tex., Dallas—City Comm., R. E. Burt, Mayor, considering improving Davis St.; extending Crawford St., through, from Davis to Neeley St.; receives bids soon to pave Worthington, Cleveland, Canton, Idaho St. and Warren Ave.

Tex., Dallas—City, R. E. Burt, Mayor, considering opening and widening Pearl St., Oak Lawn Ave. to proposed Corinth St. Bridge, widening McKinney Ave.; completing south loop of Kessler Blvd., Oak Cliff; John M. Young, City Engr.

Tex., Fort Worth—City, O. E. Carr, Mgr., considering widening Henderson St., Pennsylvania Ave. to Trinity River.

Tex., Galveston—City, E. H. Ivey, Streets Commr., plans paving esplanade on west Broadway, Forty-sixth to Forty-seventh St.; Charles A. Holt, City Engr.

Tex., Georgetown—State Highway Comm., R. S. Sterling, Chmn., Austin, plans grading and draining, Highway No. 2-B, from point west of Taylor to city limits; eliminate 2 crossings on S. P. Ry., Williamson County; cost \$15,000; D. E. H. Manigault, Div. Engr.

Tex., Jasper—Jasper County, Road Dist. No. 2, plans expending \$150,000 to improve Highway No. 45 through county and bridging Neches River into Tyler County. See Financial News.

Tex., Kerrville—State Highway Comm., Austin, receives bids Jan. 22 for 11.25 mi. broken stone, macad. base, triple bit. surface, Highway 41, Real County line to Sta. 617 plus 60; S. K. Mason, Res. Engr.; Gibb Gilchrist, State Highway Engr.

Tex., Lagrange—City plans expending \$50,000 for street paving. See Financial News. 12-13

Tex., Lagrange—City plans expending \$60,000 for paving in business district. See Financial News. 12-13

Tex., Liberty—Liberty County, C. R. Wilson, County Judge, plans expending \$2,250,000, for 188.4 mi. paved, and 24.8 mi. conc. roads, and bridge. See Financial News. 12-27

Tex., Marlin—City plans expending \$200,000 for street paving. See Financial News.

Tex., Panhandle—Carson County Commrs. Court, A. A. Callaghan, County Judge, considering paving 20 mi. Highway 66, from Grey County line to Amarillo; O. M. Simpson, Res. Engr.

Tex., San Angelo—Tom Green County plans high type pavement, Highway 99, San Angelo-Fort Stockton road, from San Angelo to Irion County line, estimated cost \$315,000; Tom J. Kelly, Res. Engr.

Tex., San Antonio—City, Paul E. Steffler, Commr. of Streets, plans widening El Paso St., 25 to 50 ft., South Laredo to South Pecos; I. Ewig, City Engr.

Tex., San Antonio—City, Fred Fries, Clk., plans expending \$56,570 to widen and pave South Presa St., Commerce to Market; \$16-

24 to pave Grayson St. from Broadway to San Antonio River; I. Ewig, City Engr.

Tex., San Antonio—Park Commr. Jake Rubiola plans widening roads in Brackenridge Park.

Tex., San Antonio—Bexar County Commrs. considering extending Roosevelt Ave. to intersection with Hot Wells Blvd.; G. H. Collins, County Engr.; Thomas Abbott, Jr., County Commr., Precinct No. 4.

Tex., San Antonio—City, Paul E. Steffler, Commr. of Streets, plans widening South Presa St. to 55 ft., West Commerce to Market; estimated cost \$85,005; I. Ewig, City Engr.

Virginia—State Highway Comm., H. G. Shirley, Chmn., made tentative allocation, \$1,278,667, for highway and bridge construction in 1929 in Suffolk Dist., comprising Tidewater Virginia and Eastern Shore.

Va., Covington—State Highway Comm., H. G. Shirley, Chmn., Richmond, receives bids Jan. 24 for .321 mi. macad. paving, Route 14, Alleghany County, from point west of Jackson River; 10,129 cu. yd. excavation, 2,035 sq. yd. bit. or waterbound macad.

Va., Narrows—See Roads, Streets and Paving.

Va., Norfolk—City, I. Walke Truxtun, Mgr., and Virginia Electric & Power Co., Richmond, plan expending \$12,000 to repave Granby St., Main to Brambleton Ave., old Queen St.; may widen Granby St.

Va., Petersburg—City, E. P. Goodwyn, acting City Mgr., may let contract to Southern Construction Corp., 216 N. Sycamore St., to repave Henry St. to Fourth, and Fourth St., Henry to East Bank St.

Va., Winchester—City, L. B. Dettra, Mgr., plans expending \$150,000 for street improvement. See Financial News. 1-3

West Virginia—State Road Comm., Charleston, plans starting in March \$12,000,000 highway building over entire state.

W. Va., Huntington—State Road Comm., Charleston, considering improving Midland Trail, in Cabell County, and State Route No. 16, between Logan and Huntington.

Contracts Awarded

Alabama—State Highway Comm., Montgomery, let contracts to Pioneer Engineering and Construction Co., Alexandria, City, for 2 roads: Randolph-Calhoun Counties—12.05 mi. gravel and top soil surface, Wedowee to Oxford; Clay-Cleburne Counties—13.76 mi. gravel surface, Delta to Hefflin. 11-29

Ala., Mobile—City Commrs., S. H. Hendrick Clk., let contracts totaling \$1,065,000 for Twenty-sixth paving venture: to Hancock Brothers, 310 St. Michael St., Mobile, \$945,000; to Wesco Co., Volunteer Life Bldg., Chattanooga, Tenn., \$120,000; types of paving include: Alabama rock asphalt, one course conc., Warrenite bitulithic, sheet asphalt and vitrified brick; Cecil F. Bates, Mayor. 11-8

La., Covington—City, Wallace M. Poole, Mayor, let contract to Southern Roads Co., Pioneer Bldg., to pave Rutland St. and Jahneke Ave. with 8510 sq. yd. asphaltic conc. base, 2-in. Warrenite bitulithic topping. 11-22

La., West Monroe, Monroe—City, C. C. Bell, Mayor, let contract to J. L. Humble to pave Trenton St., Vernon to Claiborne.

Md., Baltimore—City, Bd. of Awards, let contract to P. Flanigan & Sons, Twenty-fifth St. and Harford Ave., \$59,992, for 3650 sq. yd. granite block, 8100 sq. yd. sheet asphalt, both on 6-in. conc. base, 3000 granite curbing, etc., in Street Cont. No. 496; to American Paving & Contracting Co., Twenty-fifth St. and Montebello Ave., \$67,067, for 15,600 sq. yd. sheet asphalt, conc. base, etc., Street Cont. No. 497; to American Paving & Contracting Co., \$45,116, for 10,600 sq. yd. sheet asphalt, conc. base, 3500 ft. conc. and stone curbing, etc., Street Cont. No. 495; Nathan L. Smith, Highways Engr.

Md., Baltimore—City, Bd. of Awards, let contract to American Paving & Contracting Co., Montebello Ave. and B. & O. R. R., \$67,067, to pave Gelston Drive, Walnut Ave. to Hilton St.; Nathan L. Smith, Highways Engr.

Miss., Booneville—City, J. E. Cunningham, Mayor, let contract to Morgan-Hill Paving Co., Woodward Bldg., Birmingham, Ala., for paving in business district. 12-13

Missouri—State Highway Comm., Jefferson City, let contracts for 38 roads: Andrew County—4.922, 4.969, 2.665 and 1.944 mi. 20-ft. conc. to C. F. Lytle, Sioux City, Iowa; Benton County—2.520, 4.733 and 4.732 mi. 20-ft. conc., Stigall Construction Co., 211½ E. Commercial St., Springfield, Mo.; Cape Girardeau County—4.733, 4.465 and 325 mi. 20-ft. conc., Rouse Construction Co., Cape Girardeau; Crawford County—1.706, 2.664 and 2.664 mi. 20-ft. conc., Regenhardt Construction Co.,

Cape Girardeau; New Madrid County—4,938, 3,289, 3,497 and 3,388 mi. 20-ft. conc., Cameron-Joyce-Smith-Elder Co., Keokuk, Iowa; Nodaway County—4,681 mi. 20-ft. conc., C. F. Lytle; Pemiscott County—288 mi. 20-ft. conc., Cameron-Joyce-Smith-Elder Co.; Pettis County—2,059, 4,174, 4,209 mi. 20-ft. conc., Stigall Construction Co.; Phelps County—4,750, 4,216, 4,629 and 2,524 mi. 20-ft. conc., Regenhardt Construction Co.; Dallas County—2,894 and 2,869 mi. 30-ft. graded earth, Stigall Construction Co.; Greene County—4,242 and 4,279 mi. 30-ft. graded earth, M. E. Gillioz, Monett, Mo.; Andrew County—4,608 and 1,226 mi. 30-ft. graded earth, J. H. Miller & Son, Leon, Iowa; Buchanan County—4,629 mi. 30-ft. graded earth, M. E. Gillioz; Clay County—3,264 and 2,335 mi. 30-ft. graded earth, A. W. Mosley, 5005 Troostwood Road, Kansas City; Webster County—2,335 mi. 30-ft. graded earth, Carte-Harlin Construction Co., West Plains, Mo. 1-3

N. C., Asheville—Buncombe County Comms. let contract to L. L. Merchant Construction Co., 2110 Biltmore Ave., for 2 mi. gutter and culvert paving in northern suburban area, including 9000 ft. gutter on Barnard and Kimberly Ave. and Charlotte St. extension.

Okla., Chickasha—City, C. A. Chincholl, Clk., let contract to Edmiston Co., Chickasha, for 6-in. conc. paving in Dist. No. 42 and 47; R. O. Bradley & Co., Consult. Engrs.

Okla., Seminole—City, Palmore Noe, Clk., let contract to R. H. Chase, Seminole, \$39,447, for 11,860 yd. 7-in. conc. paving, Dist. No. 16; V. V. Long & Co., Engrs., Colcord Bldg., Oklahoma City. 12-6

Okla., Tulsa—City Comn., Dan Patton, Mayor, let contract to H. L. Cannady Co., 1122 S. Lewis St., to pave alley, Block 4, Orchard Addition; to Standard Paving Co., 2119 E. Eleventh St., to pave Twelfth St., Jackson to Maybell Ave.

S. C., Anderson—J. B. McCrary Co., Atlanta, Ga., sublet paving contract to Davis & McGee, Anderson, for 7.3 mi. conc. Starr-Iva Highway, link of Anderson-Iva road.

Tex., Waco—City Comn., E. E. McAdams, Mgr., let contract to Foty & Gaylord Construction Co., Houston, \$24,705, for 6-in. rein. conc. paving with maintenance, South Fifth St., Speight Ave. to Oakwood cemetery; to L. H. Lacy Co., 2632 Swiss St., Dallas, \$33,096, for North Ninth St., Washington to Colcord Ave. 12-13

Sewer Construction

Sewer construction in LAND DEVELOPMENT projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported.

Ala., Birmingham—Morgan-Hill Paving Co., Woodward Bldg., has contract at \$36,775 for sewers in Homewood.

Ala., Tarrant, Sta. Birmingham—City plans voting on bonds for sewers. See Financial News.

Ark., Hot Springs—City plans improvements to sewage disposal system.

Ky., Owensboro—City having plans completed by Consoer, Older & Quinlan, Consult. Engrs., 205 W. Wacker Drive, Chicago, Ill., for sewer system; will soon call for bids for construction. 12-6

Md., Baltimore—Bd. of Awards receives bids Jan. 23 for sanitary sewers and storm drains. See Want Section—Bids Asked.

Md., Cumberland—City plans issuing storm and sanitary sewer bonds. See Financial News.

Miss., Booneville—F. D. Harvey & Co., Memphis, Tenn., has contract for sewers. 12-20

Mo., Kansas City—See Roads, Streets, Paving.

N. C., Statesville—Elliott Construction Co., Hickory, has contract for \$74,663 sewer extension.

Okla., Altus—Highway Construction Co., Kennedy Bldg., Tulsa, low bidder at \$153,697 for sewer system and extensions. 12-6

Okla., Edmond—See Water Works.

Okla., Oklahoma City—Tibey Const. Co., Braniff Bldg., Oklahoma City, has contract for sanitary main sewer in Pennsylvania Ave.

Okla., Pawhuska—J. E. Short, Pawhuska, has contract for sanitary sewers in Dist. No. 11.

Okla., Tulsa—W. B. Carter, 1509 E. Admiral St., has contract at \$24,490 for constructing storm sewer.

Tenn., Bruceton—Town, A. G. Low, Mayor, considering installing sewerage system.

Tex., Waco—City votes Feb. 12 on \$31,000 sewer bonds.

Va., Narrows—City engaged J. B. McCrary Engineering Corp., Atlanta, Ga., to design and supervise street paving, storm drainage and sanitary sewers.

Street Railways

Md., Baltimore—United Railways Company applied to Public Service Comn. for permission to abandon tracks from 15th St. and 12th Ave. to Colgate Creek bridge and to lay new tracks on private right-of-way on street to be known as Cornwell St.

Telephone Systems

Ga., Savannah—Savannah Broadcasting Co., capital \$25,000, incorporated; John E. Hodge, 128 E. 49th St.

Missouri—United Telephone Co., Kansas City, applied to State Public Service Comn. for permission to acquire and operate telephone companies in 35 Missouri cities and towns; also to issue 10,000 shares of no par value common stock and \$265,000 of mortgage bonds, difference to be derived from stock issue over purchase price to go for improvements and extensions; exchanges located at Harwood, Johnstown, Lone Jack, Nelson, Pilot Grove, Rushville, Tipton, Napoleon, Wellington, Herman, Mound City, Appleton City, Rockville, Belle, Clinton, Calhoun, Ladue, Deepwater, Mt. Rose, Ulrich, Windsor, Schell City, Chamoix, Morrison, Pershing, Osage City, Warsaw, Lincoln, Cole Camp, Heral, Oak Grove, Craig, Dekalb, Fairfax, and Corning, involved.

Mo., Rolla—A. J. Roberts, 900 Ward Pkwy., Kansas City, acquired Rolla Telephone Co., Salem Telephone Co. and Newburg Telephone Co.

N. C., Winston-Salem—Southern Bell Telephone and Telegraph Co., main office Atlanta, preparing plans for telephone exchange, Fifth St.

Okla., Chickasha—Southwestern Bell Telephone Co., St. Louis, Mo., let contract to Holmboe Construction Co., 426 W. Second St., for \$50,000 telephone building; J. D. Mann Plumbing Co., 214 N. Harvey St., has sub-contract for plumbing; Gaddis-Fentress Electric Co. for wiring; all Oklahoma City. 12-27

Tenn., Dyersburg—Southern Bell Telephone and Telegraph Co., main office Atlanta, Ga., plans \$15,000 expansion program here.

Tex., Sherman—Northern Texas Telephone Co., acquired site, Wall and Walnut St., erect office building.

Tex., Waco—Northern Texas Telephone Co., increasing capital, \$457,000 to \$474,000.

Textile Mills

N. C., Albemarle—Wiscasset Mills Co. let contract for 150 tons struct. shapes to Carolina Steel and Iron Co., Greensboro, N. C., for hosiery mill. 12-27

N. C., Asheville—Knoxville Iron Co., Knoxville, Tenn., has contract for rein. steel for American Enka Corp.'s plant; H. K. Ferguson Co., Hanna Bldg., Cleveland, O., Contrs. 12-20

N. C., Durham—Durham Hosiery Mill, reported, install 14 full fashioned hosiery knitting machines in Marvin Silk Mills (Mill No. 14); cost \$120,000.

N. C., High Point—Superior Hosiery Co., Inc., organized with \$100,000 capital, V. A. Morris, Pres., establish plant, install 50 knitting machines, cost \$41,000; 500 doz. pres. seamless $\frac{1}{2}$ hose daily. 1-10

S. C., Greenville—Keowee Textile Co. incorporated; G. F. Norris, Masonic Temple.

S. C., Greenville—Mann & Plyler, Attys., Masonic Temple, reported, acquired textile mill and 12 acres land of Vardry Cotton Mills.

S. C., York—Neely-Travera Cotton Mills, Inc., reported, let contract to Clemmer Contracting Co., Gastonia, N. C., for addition to mill. 12-20

Tenn., Rockwood—Rockwood Mills, Inc., increased capital, \$200,000 to \$400,000.

Tex., Dallas—G. and S. Hosiery Co., Inc., capital \$30,000, incorporated; J. F. Sullivan, Jr., 4110 Normandy St.

Virginia—Rockbridge Textile Co., Lee H. Williamson, Charlottesville, Va., Consult. Engrs., reported, let contract to Virginia Bridge & Iron Co., Roanoke, for 350 tons struc. steel for textile mills at Craigsville, Augusta Springs and Goshen. 12-6

Va., Danville—Character Products Co., Inc., capital \$250,000, chartered; C. H. Deal, Salisbury, N. C.; Fred Van Wagenen, Danville, Va.; manufacture cotton, silk and wool.

Va., Wytheville—Wytheville Woolen Mills, Inc., increased authorized maximum capital from \$50,000 to \$300,000.

Water Works

Details of water works improvements in connection with the many LAND DEVELOPMENT operations will be found under that classification.

Alabama—Federal Water Service Corp., 27 Williams St., New York, offering 100,000 shares of Class A stock, no par value, through Chas. D. Barney & Co., New York; company supplies water to cities and communities in West Virginia and Alabama, etc.

Alabama—Alabama Water Co., Birmingham, plans constructing dam on Short Creek; supply Albertville and Boaz with water; construct reservoir between cities; cost \$200,000.

Ala., Gadsden—T. S. Kyle and B. L. Noojin petitioned city to extend water mains to residence section in Bellevue Highlands on Look-out Mountain.

Ark., Norphlet—City, J. S. Thomas, Mayor, extend water works and street lighting; install tank, also generator set for street lights. See Want Section—Machinery and Supplies. 1-10

Ga., Atlanta—Bond Comsn. approved extension of water mains from Luckie St. from Bartow to Cone and in Cone St. from Luckie to Walton; cost \$36,000.

Md., Smithsburg—Town considering installation of water system, may issue bonds.

Miss., Forest—City voted \$60,000 water works bonds; install complete system. 11-29

Miss., Hattiesburg—T. P. Crymes, Adeline St., has contract for sanitary sewer line, septic tank and repair city water works plant.

Mo., Sedalia—Sedalia Water Co., applied to State Public Service Comsn., Jefferson City, for authority to issue 700 additional shares of 7% cumulative preferred stock with \$100 a share par value, for reimbursing treasury and for contemplated improvements.

Mo., St. Charles—City votes Feb. 5 on \$450,000 bonds for sanitary sewers; Burns & McDonnell, Engrs., 401 Interstate Bldg., Kansas City. 11-3

Okla., Edmond—City voted \$45,000 water works and sewer bonds.

Okla., Gould—Charles Roebeck & Co., Omaha, Neb., low bidders at \$54,468 for water works. 12-13

Okla., Tulsa—City receives bids Jan. 29 for water filtration plant. See Want Section—Bids Asked.

Tenn., Knoxville—Fountain City Water Co., John L. Hubbard, Pres., install \$250,000 plant and 20 miles of water mains; G. H. Bishop, of Carolina Engineering Co., Engr.

Tex., Amarillo—City, H. B. Jones, Engr., having plans completed and soon call for bids for \$90,000 addition to water works; install air compressor, centrifugal pump with 6,000,000 gal. daily capacity; Wynkoop Kiersted, Consult. Engrs., 614 Interstate Bldg., Kansas City, Mo.

Tex., Austin—City, Adam R. Johnson, Mgr., let contract to United Engineers and Constructors, Inc., 112 N. Broad St., Philadelphia, Pa., for addition to water and light plant; cost \$460,000 including power unit and installation of oil and gas burners; soon call for bids for machinery and equipment.

Tex., Brownwood—Brown County Water Improvement Dist. No. 1, J. R. Looney, Pres., revising plans for water works; district includes 14,000 acres, 10,000 acres of which are to be irrigated; construct reservoir and pipe distribution system; capacity 125,000 acre ft.; dam, 90 ft. high, 1600 ft. long, earthen hydraulic process; D. W. Ross, Houston Bldg., San Antonio, and P. A. Welty, 1711 11th St., Wichita Falls, Engrs. 12-27

Tex., Dallas—Ulrickson Committee approved plan to supply industrial district in Trinity River levee district with water mains; City engineers will make plans and specifications to be approved by Fuller & McClintock, Engrs., 170 Broadway, New York; also recommended valve contract be let to Renesselaer Valve Co., Troy, N. Y.

Tex., Fairfield—Koch & Fowler, Central Bk. Bldg., Dallas, have franchise to construct water works and sewer system. 12-20

Tex., Port Neches—City, E. M. Wilkinson, Clk., expend \$125,000 for new water and sewer system; all materials purchased except filter equipment; opens constructions bid about Feb. 1; H. L. Thackwell, Engr.,

Jacksonville, Tex.; Southern Pump and Engine Co. (Fairbanks, Morse & Co., Agts.) 1-10

Tex., Fort Worth—Tarrant County Water Improvement Dist. No. 1 will begin construction work within 6 months on 2 lakes to be created for purpose of flood control, water supply and irrigation; Hawley & Freese, Consol. Engrs., 411 Capps Bldg., Fort Worth. 5-24

Tex., Granger—City receives bids Jan. 22 for water works mains, etc. See Want Section—Bids Asked.

Tex., Marshall—City, H. J. Graeser, Mgr., plans water works improvements and sewer extensions; Hawley & Freese, Consol. Engrs., 403 Cotton Exchange Bldg., Fort Worth.

Tex., McCamey—Henry & Holland have contract for water works improvements, cost \$30,000; city plans erecting 120,000 gal. reservoir.

Tex., Paris—City votes Feb. 15 on \$250,000 bonds for sewers. 11-22

Tex., Stinnett—Irick Construction Co., Plainview, has contract for water works improvements, install 17,000 ft. c. i. pipe, American Cast Iron Pipe Co., Contr., Birmingham, Ala.; install 150,000 gal. elevated tank, Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa., Contr.; H. N. Roberts, Engr., Myrick Bldg., Lubbock. 1-3

Woodworking Plants

Ark., Eureka Springs—S. H. Bullock & Son, J. M. Bullock, advises moving present mill to new location and installing new machinery; work by company's forces; manufacture wood brackets for stringing telephone and electric wires on poles. 1-10

Ga., Macon—Southern Crate & Veneer Co., C. C. Humphries, Treas., advises plant was not destroyed by fire or not in any way injured; recently noted destroyed.

La., Monroe—E. H. Dean, Portland, Ark., leased building; establish chair factory; machinery ordered; employ approx. 50.

N. C., Roxboro—Chamber of Commerce, C. H. Hunter, Sec., interested in establishing factory for making shuttle blocks from dogwood.

Tenn., Memphis—Murray Corporation of America, C. W. Avery, Pres., Clay Ave. and Russell St., Detroit, Mich., reported, completing plans for \$3,000,000 plant, manufacture of hardwood parts for automobile bodies; following estimating on general contract: S. and W. Construction Co.; Estes-Williams Construction Co., Derron Bldg.; Gauger-Korsmo Construction Co., Fidelity Bank Bldg.; H. A. McGuire & Co., Derron Bldg.; Ferguson Construction Co., Graham Bldg.; and B. E. Buffalo & Co., 658 East St., all Memphis; Rock City Construction Co., 150 Fourth Ave. N., Nashville; Struck Construction Co., 147 N. Clay St., Louisville, Ky.; National Construction Co., 215 Norris Bldg.; C. A. D. Bailey & Co., Inc., Citizens and Southern Bank Bldg., both Atlanta, Ga.; Angle-Blackford Construction Co., American Exch. Bank Bldg., Greensboro, N. C. 1-3

FIRE DAMAGE

Ala., Birmingham—Wilson & Co.'s meat packing plant, 2 N. 23d St.; loss \$20,000.

Ala., Monroeville—Methodist Church, loss \$10,000; address The Pastor; Monroeville Motor Co., loss \$8000.

Ark., Arkadelphia—Residences of W. K. Bledsoe and Mrs. J. N. Vestal, Sixth St.; loss \$10,000.

Ark., Yancey—Charley Green's residence.

D. C., Washington—Barracks No. 23 and 4 garages, Bolling Field. Address Capt. C. A. Schwarzwaelder.

D. C., Washington—Dulin & Martin crockery store, Homer Bldg., Lucy Lou Shops, Queen Quality Boot Shop, Photograph Shop, and buildings of Rizik Bros., importers, and Snyder & Little, shoes, all 1200 blocks F and G Sts.; loss \$350,000.

Fla., Jasper—Hamilton County Courthouse; loss \$40,000.

Fla., Tampa—Dominguez & Co.'s warehouse, 12th and Whiting Sts.; loss \$10,000.

Fla., Tampa—Tampa Brokerage Co.'s warehouse, 1223 Madison St.; loss \$60,000.

Fla., Winter Haven—R. F. Jarrett's residence.

Ga., Atlanta—B. B. Bonner's residence, 759 Peachtree St.

Ga., Atlanta—Hanley Co.'s building; Har-rls Hardware Store.

Ga., Boston—E. M. Ray's residence.

Ga., Chamblee—Irwindale Dairy and Poultry Farm; loss \$12,000.

Ga., Jessup—J. F. Fender's dwelling.

Ga., Macon—Barn on farm of S. W. Heard.

Ga., Monroe—Gymnasium of Monroe A. and M. School; loss \$8,000.

Ga., Rome—Cotton warehouse of Strain Manufacturing Co.

Ga., Summerton—W. L. Coleman's cotton seed warehouse.

Ky., Owensboro—Robert Reid's residence on Hardinsburg road.

La., Algiers, New Orleans—Laundry, U. S. Veterans Hospital; loss \$50,000. Address Medical Officer in Charge.

La., Baton Rouge—Residences of J. L. Gumby, H. H. Goodwin, L. H. Felder and J. W. Rochester, North Highlands.

La., Bogalusa—Rappolo's Bakery, Columbia St.; loss \$10,000.

La., New Orleans—Ethel Reynolds' residence, 1800 Louisiana Ave.; loss \$10,000.

La., New Orleans—Building occupied by Lighting Fixture Supply Co., Inc.; loss \$150,000.

La., Opelousas—Fadaol's Department Store. Address The Owner.

Md., Baltimore—Five-story building at Redwood and Hanover Sts. owned by Galther Estate, occupied by J. Jenkins Sons Co., Mitchell & Norwig Co., Lafayette Manufacturing Co., M. Levy Co. and Stern Bros.

Md., Baltimore—Store at 617 W. Lexington St. owned by Rieman Estate, occupied by C. D. Kenny as coffee store.

Md., Baltimore—Four-story building, 406 W. Redwood St., owned by Walter and Joseph Goldstein; occupied by S. Lachman & Sons, toys and novelties; Rose Overall and Shirt Co., G. B. S. Tailoring Co., Twentieth Century Printing Co.; loss \$75,000.

Md., Baltimore—Harry Carpenter's store, 1226 Pennsylvania Ave.

Md., Baltimore—A. Rosenberg's store, 761 Washington Blvd., occupied by John Catania.

Md., Crisfield—Hotel Davenport owned by David and Aaron Saltz.

Md., Lutherville—Wm. M. Zink's residence, Chestnut Ridge near Lutherville; loss \$20,000.

Md., Newark—Levin Connors' store and 3 other buildings; loss \$30,000.

Miss., Hattiesburg—Rawls and Carter Drug Store, owned by G. E. Taliferro.

Miss., Itta Bena—Residence of Dewitt and John Coppage, S. Lake Front St.; loss \$8000 to \$10,000.

Miss., Laurel—J. B. Maxie's residence.

Miss., Pontotoc—Residences of W. T. Helms and G. H. Andrews.

Miss., Ruleville—Major A. L. Pentecost's residence; loss \$12,000.

Miss., Runnelstown, R. D. from Hattiesburg—Runnelstown High School; loss \$30,000.

Miss., Waynesboro—Mrs. David Moreland's residence at Boyce, near Moreland.

Mo., Bethany—Hotel Bethany. Address The Proprietor.

Mo., Excelsior Springs—Earl L. Morrison's residence, Magnolia St.; loss \$8,500.

Mo., Hamilton—First National Bank; loss \$50,000.

Mo., St. Louis—Three-story, 6-family apartment, 7527 Oxford Drive, under construction; W. S. Moore, Contr., 937 Claytonia Terrace, Richmond Heights; loss \$30,000.

N. C., Charlotte—Cutter Bldg., occupied by Carolina Dental School, Chas. A. Kaelin Dental Place, etc.

N. C., Charlotte—North Charlotte Presbyterian Church.

N. C., Monroe—Main bldg., Union County Home near Monroe; loss \$100,000. Address Jos. Starns, Supt.

N. C., Rosemary—Rosemary Theater, owned by J. E. Dobbins; loss \$27,000.

N. C., Stony Fork—Stony Fork School. Address School Bd.

Okla., Fort Sill, Lawton—Hangar No. 4 and planes of 88th Observation Squadron, Maj. Louis Brereton, Comdr.; loss \$90,000.

Okla., Hobart—Seed house of Hobart Cotton Oil Mill; loss \$20,000.

Okla., Hockerville—Dorothy Bell Mining Co.'s mill; loss \$150,000.

S. C., Blackville—Residences of Wade Grubbs and W. W. Cain, both Dexter St. S. C., Troy—J. R. Palmer's store.

S. C., Mullins—Judge W. D. Jenerette's residence.

S. C., Ninety Six—Ninety Six Lumber Co.'s plant.

S. C., Richburg—Mrs. R. H. McCrorey's store.

Tenn., Halls—Unionville Cotton Gin operated by W. E. Moore.

Tenn., Memphis—Apartment buildings on S. Rembert St. owned by E. B. Wiesner, Mrs. Alice McFadden, Memphis, and J. R. Starr, Birmingham, Ala.; loss \$10,000.

Tenn., Nashville—Southern Garage; loss \$50,000.

Tenn., Paris—Chas. T. Lewis' residence, Como Road.

Tex., Conroe—W. P. Terrell's residence.

Tex., Cuero—Mrs. J. Nelms' residence near Concrete; loss \$6000.

Tex., Dallas—Three hotels and rooming houses occupied by students of Baylor Medical College.

Tex., Derby—Derby Gin, owned by J. M. Sorrell, Pearsall.

Tex., Devine—Annex to Rose Lodge, owned by Mrs. Lena B. Whitfield.

Tex., Fort Worth—First Baptist Church; loss \$300,000.

Tex., Galveston—Masonic Temple, 21st St. and Avenue E; loss \$10,000.

Tex., Gollad—Barn at V. T. Irby home on R. F. Irby & Sons' ranch.

Tex., Grand Prairie—Baptist Church; loss \$8,000. Address The Pastor.

Tex., Grandview—Rockport Milling Co. elevator, operated by Daniel Kopp, Rockport.

Tex., Honey Grove—Williamson Co.'s dry goods store; Atlantic & Pacific Tea Co.'s store; Paris Coca Cola Co.'s storage building; Planter's Bank Bldg.; loss \$75,000.

Tex., Laredo—Brennan Corrigan garage and 28 automobiles; T. O. O'Connor, owner; loss \$90,000.

Tex., Miles—C. E. Story's farmhouse.

Tex., Richland—N. J. Middlebrew's gin; loss \$20,000.

Tex., Rising Star—Berry Lumber Co.'s yards; loss \$10,000.

Tex., Stamford—Cooper Hotel operated by Mrs. L. D. Cooper, owned by C. E. Overby; loss \$20,000.

Va., Danville—Building, Main and Market Sts., occupied by Silverman's Clothing Store and Quality Shop, owned by Harrison Robertson Estate; loss \$25,000.

Va., Sycamore—Jabe Dalton's residence near Sycamore.

W. Va., Huntington—Building occupied by Tri-State Transit Co., at rear of 1014 Sixth Ave.

W. Va., Wheeling—A. R. Reith's residence, Sunset Blvd.; loss \$20,000.

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

Okla., Ada—Ancient Free and Accepted Masons, C. E. Cunniff, member, erect \$200,000 lodge and office bldg.; rein. conc., 7 stories, 50x130 ft.; Albert S. Ross, Archt.

Okla., Anadarko—Parker-L-See-O all-American Indian Post, American Legion, erect clubhouse, Caddo County Free Fair grounds.

Tenn., Knoxville—Young Men's Christian Assn., Ben A. Morton, Trustee, may call for bids within 3 weeks for building, Clinch Ave. and Locust St.; \$500,000, 4 stories and base-

ment, 125 rooms; Barber & McMurry, Archts., Tenn. General Bldg. 9-27

Tex., Perryton—Ancient Free and Accepted Masons, C. L. Forbes, member, Bldg. Comm., plans temple.

Bank and Office

Ala., Birmingham—Reeves Bros. Iron Works receive bids Jan. 22 for office bldg.; brick, steel and conc. floor constr., 2 stories, 40x80 ft., cement and linoleum floors, conc. foundation, built-up roof; Warren, Knight & Davis, Archts., Protective Life Bldg. See

Want Section—Building Material and Equipment. 1-10

Ala., Ensley—Following contractors estimating on superstructure of \$350,000 Ramsay-McCormack Bldg. for Ensley Holding Co., date of bids not determined: Smallman Construction Co., 1109 Fifth Ave., S.; J. F. Holley Construction Co., 817 19th St.; A. J. Honeycutt, 2408 15th Ave., N.; Bride-Estes Co.; D. T. Underwood, Inc., Edgewood St.; E. G. Holladay Co., Martin Bldg., all Birmingham Ala.; Batson-Cook Co., West Point, Ga.; A. J. Krebs Co., Walton Bldg., Atlanta, Ga.; W. P. Thurston Co., Inc., Richmond Tr. Bldg., Richmond, Va.; A. C. Samford, Hugger Bros. Construction Co., both Sherbert Bldg., Montgomery, Ala.; O. M. Gwin Construction Co., Union Indemnity Bldg., New Orleans, La.; L. W. Hancock, Louisville Tr. Bldg., Louisville, Ky.; Foster-Creighton Co., Fourth and First Bldg., Memphis, Tenn.; Brooke B. Burnham, Archt., Age-Herald Bldg.; E. W. Brunnell, Mech. Engr., Amer. Tr. Bldg., both Birmingham. 1-10

Ala., Mobile—Mobile National Bank having plans drawn by Wm. H. March, State Office Bldg., and Hutchisson, Holmes & Hutchisson, Staples-Powell Bldg., Asso. Archts., to remodel bldg., St. Joseph St.; 2 stories, rubber tile floors, built-up flat roof; \$25,000. See Want Section—Building Material and Equipment.

Ga., Atlanta—Atlanta Trust Co., A. J. Orme, Pres., plans \$500,000 addition to office building, including 3-story store adjoining; rein. conc. and struct. steel, brick and stone, 14 stories and basement, 40x60x200 ft., built-up roof, steam heat; Frazier & Bodin, Archts., Candler Bldg. 1-10

La., Baton Rouge—Lafayette Realty Co., Lewis Gottlieb, Pres., receives bids Jan. 25 for Medical Arts Bldg.; \$350,000, fireproof, steel, brick and stone trim, 9 stories, garage, running ice water; Edw. F. Neild, Archt., City Bank Bldg., Shreveport; following contractors estimating: A. C. Stewart, 810 E. Boulevard; L. W. Eaton, 1601 N. Boulevard; C. B. Stewart, 406 Third St.; Clifford King, 741 North St., all Baton Rouge; O. M. Gwin Construction Co., Union Indemnity Bldg.; Caldwell Bros., 816 Howard Ave., both New Orleans; Knapp & East, Kaufman Bldg., Lake Charles; Glassell-Wilson Co., 501 Texas St., Shreveport; Stewart & McGehee Construction Co., Kahn Bldg., Little Rock, Ark. 1-10

La., New Orleans—Theard & Matthews, Archts., Balter Bldg., drawing plans for \$250,000 Medical Arts Bldg., Prytania and Delachaise Sts., for syndicate; fireproof, steel, brick, stone trim, 5 stories, pile foundation, struct. steel and orna. iron, tile floors, marble work, sheet metal work, 2 high-speed elevators.

Mo., Sedalia—Third National Bank, Third St. and Ohio Ave., erect bldg.; stone, 2 stories; Fred Organ, Archt., Omaha, Neb.

Mo., St. Louis—Henry R. Weisels Co., Inc., promoting erection of \$425,000 medical and dental office bldg., Forest Park Blvd. and Euclid Ave.; building company to be incorporated; structure, 8 stories, 102 ft. wide, fireproof, marble and bronze lobby, vitreous tile, laboratory and operating room walls and floors, rubber tile and other floors, 2 high-speed elevators, compressed air, X-ray equipment; Preston J. Bradshaw, Archt., 718 Locust St.; work probably start about May 1.

Miss., Jackson—Claude H. Lindsley, Archt., Lamar Life Bldg., has drawn plans for \$500,000 office building; tower type, 17 stories, about 200 ft. high.

Tenn., Knoxville—Fidelity Trust Co. remodel and add 3 stories to 7-story Empire Bldg., banking quarters on first floor; advise has no definite plans. 8-16

Tenn., Maryville—Bank of Blount County, John M. Clark, Pres., considers erecting 2 additional stories to bank.

Tenn., Memphis—R. L. Taylor, Falls Bldg., and associates, purchased Chamber of Commerce Bldg.; will remodel; considering erecting 4-story addition.

Tex., Galveston—South Texas National Bank, Geo. Sealy, Chmn., Bldg. Comm., selected Hedrick & Gottlieb, Post-Dispatch Bldg., Houston, as architects for 2-story bank and office building, 22nd and Market Sts. 11-29

Tex., San Angelo—Following firms invited to bid on office building for C. C. McBurnett, bids Jan. 21: General, Robt. E. McKee, 1916 Texas St.; Ware-Ramey Construction Co., 1614 E. Missouri St., both El Paso; P. O. B. Montgomery; Henger & Chambers, Dallas Natl. Bank Bldg.; Bellows-MacLay Construction Co., Construction Industries Bldg.; Central Contracting Co., Athletic Bldg.; Christy-Dolph Construction Co.; Hickey & Harrington, both Construction Industries Bldg.; C. L. Shaw, 767 S. Lamar St.; Mahaffey & Howard, Gaston Bldg.; Harshall Construction Co., all Dallas; Thos. S. Byrne,

Van Zandt Bldg., Fort Worth; Kroeger Brooks Const. Co., Frost Bldg., San Antonio; Belfanz Construction Co., San Angelo and Abilene; Plumbing, Levy Plumbing Co., 2538 S. Ervan Bldg.; Wallace Plumbing Co., 2224 Sumter St.; Sanguinett & Payne, 2102 Live Oak St.; Dallas Heating and Ventilating Co., Alamo St., all Dallas; A. T. Cheaney, San Angelo, and 1822 Windsor Ave., Waco; J. M. Sprekelmeyer, Fort Worth; J. C. Korloth, Sherman; Braden-Hudson-Wangler Co., 302 E. Commerce St., San Antonio and San Angelo; Hill Bros. & Co., 705 Austin Ave., Waco; Elect. work, Bunyard Electric Co.; Bullock & Taylor; B. Loveland, all San Angelo; Braden-Hudson-Wangler Co., San Antonio and San Angelo; J. M. Johnson & Co., 508 N. Akard St.; A. C. Electric Co.; N. E. Busby & Co., 111 S. Haskell St.; Electric Construction Corp., 1715 Live Oak St., all Dallas; Sun Electric Co., Abilene; Anton F. Korn, Archt., Thomas Bldg., Dallas; B. M. Morgan, Asso. Archt., San Angelo Natl. Bank Bldg., San Angelo. 1-10

Churches

Ala., Montgomery—Court St. Methodist Church considers erecting \$350,000 building, Fairview Ave., Norman Bridge and Woodley Roads. Address The Pastor.

Fla., Miami Beach—Miami Beach Baptist Church, Rev. W. H. Sledge, Pastor, 621 N. W. 33rd St., Miami, auditorium and Sunday school; about \$25,000; Alex. Lewis, Archt.

Ga., Atlanta—Peachtree Christian Church, Dr. L. O. Bricker, Pastor, erect \$35,000 addition; brick, 2 stories and basement, 30x60 ft., terra cotta trim, conc. and wood floors, comp. roof; Chas. H. Hopson, Archt., Healey Bldg.

Ga., Atlanta—Haygood Memorial Methodist Church, Oliver Dolvin, Chmn., Bldg. Comm., have plans about ready for \$75,000 brick building; Daniell & Beutell, Archts., Healey Bldg. 9-6

Ga., Atlanta—First Presbyterian Church, Sam Inman, Chmn., Bldg. Comm., soon have plans completed for \$150,000 Sunday school and new tower; rein. conc., 4 stories, rein. conc. foundation, tar and gravel guaranteed roof; A. Ten Eyck Brown, Archt. (A. Barile, Jr., Associate), Forsyth Bldg., Atlanta; Hobart Upjohn, Consit. Archt., Grand Central Terminal, New York. 10-18

Ga., Atlanta—Hebrew Benevolent Congregation, Harold Hirsch, Chmn., Bldg. Comm., Hurl Bldg., probably have plans ready early in Feb. for \$450,000 fireproof synagogue, Peachtree and Spring Sts.; rein. conc. struct. steel, stucco and hollow tile, Travertine marble trim, 305x100 ft., 130 ft. high; Sunday school 2 stories and basement; tile dome, terrazzo floors, interior marble, built-up and tile roof, stained glass, metal sash, hot air and steam heat; Hentz, Adler & Shutze, Archts., Candler Bldg.; Robt. S. Fiske, Engr., Healey Bldg. 6-21

Ga., Columbus—Emmanuel Baptist Church, Rev. O. F. Barnes, Pastor, erect church and parsonage, Buena Vista Road and Britt Ave., Wynnton; brick, auditorium 2 stories, seat 500, Sunday school 3 stories, 25 classrooms and 5 assembly rooms, conc. and hardwood floors, steam heat; Oren Smith, Archt., Murrah Bldg.; plans ready about Jan. 20.

Ga., Hapeville—Methodist Church receives bids Jan. 24 at office Hentz, Adler & Shutze, Archts., Candler Bldg., Atlanta, for brick addition; 2 stories and basement, conc., tile and wood floors, conc. footings, comp. roof; following contractors estimating: G. F. Wells, Hapeville; Wm. Alden, Decatur; H. M. White, 71 McDonough Road; W. H. Caldwell; W. J. Hern; J. F. Higdon, Silvey Bldg.; Yost Construction Co.; J. M. Davis, 1072 Emmerson Ave., S. E., all Atlanta.

Miss., Moorhead—Baptist Church, Dr. J. H. Hook, Pastor, having plans drawn by J. M. Spain, Millsaps Bldg., Jackson, to remodel bldg.; \$15,000.

N. C., Charlotte—North Charlotte Presbyterian Church, Rev. A. F. Doty, Pastor, 1301 E. 31st St., plans \$15,000 bldg. to replace burned structure.

Tex., Corpus Christi—First Presbyterian Church, Rev. C. H. Storey, Pastor, plans building; Wyatt C. Hedrick, Inc., Archt., First Natl. Bank Bldg., Fort Worth.

Tex., Cuero—St. Michaels R. C. Church plans \$35,000 to \$40,000 building. Address The Pastor.

Tex., Fort Worth—First Baptist Church, Rev. J. Frank Norris, Pastor, rebuild church noted burned at \$300,000 loss.

Tex., Haskell—First Methodist Church erect Sunday school annex. Address The Pastor.

Tex., Houston—East End Baptist Church, care Rev. D. R. Pevoto, 224 W. 15th St., raising funds for first unit of building.

Tex., Houston—Hedrick & Gottlieb, Archts., Post-Dispatch Bldg., completed plans for 2

churches in South End; bids probably be called within 30 days.

Tex., Houston—First Christian Church, R. W. Jenkins, Chmn., Bldg. Comm., having final plans drawn by Jas. Ruskin Bailey, Archt., Public Natl. Bank Bldg., for 4-story and basement church building, Main St. and Bell Ave.; foundation to permit ultimate erection of 12-story church and office building; first unit \$600,000; total \$2,800,000; 125x175 ft.; 9 stories on first floor; main auditorium on mezzanine floor to accommodate 6000; additional auditorium to seat 600; Sunday school accommodate 3000. 1-10

Tex., Houston—Chas. P. Jones & Co., Archts., Binz Bldg., drawing plans for church near Houston.

Tex., San Antonio—Highland Park Presbyterian Church, Dr. B. D. D. Greer, Pastor, erect Sunday school, Hammond and S. Gevers St.; 2 stories, about 50x96 ft., 2 assembly rooms, gymnasium, locker rooms, library; R. H. H. Hugman, Archt., Texas State Bank Bldg.

Tex., Sherman—First Presbyterian Church probably call for bids in few days for 3-story Sunday school; Clyce & Rolfe, Archts. 9-20

City and County

Fla., Daytona Beach—City Council construct baseball diamond, football field, circular running track and additional grandstand and bleachers, Burgoyne Isle; work started on diamond.

Ky., Hindman—Knott County Bd. of Comms. plans to rebuild courthouse lately noted burned.

Md., Bel Air—Harford County Bd. of Comms., E. Snodgrass, Pres., plans bldg. for county offices; J. R. Hamme, Archt., 21 W. Market St., York, Pa.

Md., Upper Marlboro—Prince George County Bd. of Comms. interested in joint almshouse and hospital to serve St. Mary's, Charles and Prince George counties.

Miss., Hattiesburg—S. D. Berry, Chmn. of Bd. of Trustees, to let contract for \$40,000 public library, revising plans and will have plans refigured by Oden & Glenn, Massengale & McIntosh, Citizens Bk. Bldg., McLaughlin & Glenn, all Hattiesburg; W. P. Keeton, Petal, Miss., and W. S. Rutter, Brookhaven; E. C. Hearon & Sons, Archts., 201½ W. Pine St., Hattiesburg. 12-20

N. C., Charlotte—City Comsn., Julian H. Little, Chmn., Finance Comm., may erect \$200,000 armory-convention hall building.

Tenn., Elizabethton—Carter County Bd. of Comms., W. C. O'Brien, Chmn., erect \$25,000 addition to jail; remodel present structure; install steam heating plant to supply courthouse and jail.

Tenn., Rogersville—Hawkins County Court, Geo. H. Campbell, Chmn., remodel courthouse; \$42,000.

Texas—J. M. Glover, Archt., Bankers Mortgage Bldg., Houston, drawing plans for 2 courthouses in Southern Texas.

Tex., Canadian—City voted \$35,000 city hall and auditorium bonds. Address City Council.

Tex., Cuero—City remodel auditorium; \$10,000. Address City Council.

Tex., Dallas—Dallas Public Library Bd. of Trustees, W. T. Henry, Chmn., plan 4 branch libraries and improvements to downtown building; \$500,000 available.

Tex., Dallas—City, Clarence Parker, Commr. of Police, remodel present central fire station, Rose Ave. and Lebnard St., for police headquarters; Flint & Broad, Archts., Melba Bldg.

Tex., San Antonio—City, Jake Rubiola, Park Commr., having plans drawn for outdoor stage and dressing rooms, Star Garden, Brackenridge Park; also plans \$13,000 addition to Witte Museum.

Tex., Temple—City Comsn., G. E. Byars, City Engr., let contract at \$110,800 to L. H. Lacy Co., 2632 Swiss St., Dallas, for city hall; brick, tile, rein. conc. and struct. steel, stone, cement and tile floors, metal lath and plaster, comp. roof; Milton W. Scott & Co., Archts., 412½ Franklin Ave.

Va., Covington—City, F. W. Waggoner, City Mgr., receives bids until Jan. 22 for 2-story municipal bldg.; plans from City Mgr.

Va., Winchester—Zarah Zane Fire Co., Jas. N. Moling, Capt., plans to enlarge fire house.

Dwellings

Ark., Gravette—Methodist Episcopal Church, South, Rev. T. J. Justice, Pastor, erect 6-room parsonage.

D. C., Washington—D. Gordon and Ella L. Washburn, 1337 Newton St. N. W., have

permit for 5 dwellings, 916-2 2Tenth St. S. E.; 2 stories, brick and tile; \$20,000.

D. C., Washington—Chas. W. and C. R. Wenger, 1627 K St. N. W., have permits for 6 brick and tile dwellings, 3628-38 Windsor Place N. W.; 2 stories; \$50,000.

D. C., Washington—Max Zittmore has permit for 6 brick and tile dwellings, 3626-28 Everett St. N. W.; 2 stories; \$48,000.

D. C., Washington—Everett S. Beall, Jr., 1261 New Hampshire Ave. N. W., has permit for 2 brick dwellings, 3815-17 Upton St. N. W.; 2 stories; \$20,000.

D. C., Washington—D. L. Tippet has permit for frame residence and garage, 3215 Chestnut St. N. E.; 2 stories; \$10,000.

D. C., Washington—W. C. Kremkay, 1319 Fein St. N. W., has permit for \$11,000 residence, 7511 Thirteenth St. N. W.; 2 stories, brick.

Fla., Palm Beach—Dr. Bennett, erect residence, S. Ocean Blvd.; Marion Sims Wyeth, Archt., Wyeth Bldg.; plans ready about 10 days.

Ga., Atlanta—Judge John S. Candler, Candler Bldg., erect \$35,000 residence after plans by Ivey & Crook, Archts., Candler Bldg.; face brick veneer, 2 stories and basement, 78x37 ft., conc. and brick foundation, tile, linoleum and hardwood floors, slate roof, steam heat; bids Jan. 14. 1-10

Ga., Forsyth—Mrs. Dorothy B. Alexander erect brick veneer residence; 1 story, hardwood floors, comp. roof; Dunwoody & Oliphant, Archts., 460 Broadway, Macon. See Want Section—Building Material and Equipment.

La., New Orleans—Kansas City Southern Rwy. plans 3 employees' dwellings, right-of-way adjoining Sabine Parish Fair grounds.

Md., Baltimore—Iredell W. Iglehart, 17 South St., erect residence, Homeland; Palmer & Lambdin, Archts., 513 N. Charles St.

Md., Baltimore—D. K. Este Fisher, American Bldg., erect residence, St. Albans Way and Belvedere Ave., Homeland; Taylor & Fisher, Archts., Union Tr. Bldg.

Md., Baltimore—John J. Kirkness, 4829 Reisterstown Rd., erect 30 brick dwellings, 4300 block Berger Ave.; 2 stories, \$60,000.

Md., Baltimore—Wm. W. Darsie, 13 York Ct., erect \$15,000 residence, 118 Taplow Rd., Homeland; brick, 2 stories.

Mo., Dallas (R. D. from Martin City)—C. Forsythe, 4019 Main St., erect stone residence; 1 and 2 stories; G. Swehla, Archt., 4022 Broadway, both Kansas City.

Okla., Tulsa—M. R. Sabin, 207 E. Woodward St., erect \$10,000 residence, 2530 S. Cincinnati Ave.

Okla., Tulsa—J. A. Porter, 1423 S. Main St., erect \$20,000 residence, 2442 S. Owasso Place.

S. C., Aiken—Sol and Sam Surasky erect number dwellings.

Tenn., Knoxville—A. M. Hill Co., 400 W. Church Ave., erect 3 English type dwellings below Bearden, West Hill Park; \$4000 each.

Tenn., Knoxville—L. L. Bailey erect \$15,000 residence, Scenic Drive; brick, 2 stories.

Tenn., Knoxville—Hugh Goforth erect \$13,000 residence, Lyons View Pike; 8 rooms.

Tenn., Knoxville—Will F. Akers receives bids Jan. 21 for brick veneer residence; 68x49 ft., oak oors; Albert E. Gredig, Archt., both Mercantile Bldg. See Want Section—Building Material and Equipment. 1-10

Tenn., Knoxville—W. C. Terry, 325 W. Clinch Ave., erect Spanish type residence, Holston River; R. F. Graf, Archt., completing plans.

Tex., Beeville—Dr. L. N. Connally about ready for bids for brick veneer residence; 1 and 2 stories, 8 rooms, 2 baths; Malcolm G. Simons, Archt., Bldrs. Exch. Bldg., San Antonio.

Tex., Breckenridge—E. J. Benton erect \$12,000 residence, N. Parks St.

Tex., Del Rio—W. E. Weatherbee erect Spanish type cement tile residence; 1 story, rein. conc. foundation; Albaugh & Steinbomer, Archts., Real Est. Bldg.; receiving local bids.

Tex., El Paso—W. G. Wuehrmann, Archt., Two Republics Bldg., completing sketches for dwelling, Blacker and Ochoa Sts.

Tex., Fort Worth—Rogers & Barber erect \$15,000 residence, Ward Pkwy., Berkeley Addition; 2 stories.

Tex., Fort Worth—J. D. Collett, 900 1/2 Throckmorton St., has permit for \$24,000 residence and garage, Rivercrest Drive and Seventh St.

Tex., Houston—W. A. Stubblefield, 317 Fairview St., erect \$12,500 residence and garage, 2323 Prospect St.; brick veneer, 2 stories, 10 rooms.

Tex., Houston—E. E. Clark, 4726 Walkerrado Bldg.; drawings from Department of Interior. 12-27

Tex., Houston—J. M. West, Jr., West Bldg., start work Feb. 1 on \$100,000 residence, Clear Lake, 28 miles from Houston; 15 rooms, Italian type, white brick or stone, red and brown tile roof, wrought iron stairway; Jos. Finger, Archt., Keystone Bldg., Houston; interior decorating Barker Bros., Los Angeles, Calif.; landscaping, Mason C. Coney, Second Natl. Bank Bldg., Houston. 11-15

Tex., Houston—C. M. Lusk, Esperson Bldg., erect \$11,500 residence, Riverside Drive; frame, 7 rooms.

Tex., Houston—Jos. Finger, Archt., Keystone Bldg., drawing plans for 3 dwellings; \$25,000 or more each.

Tex., Houston—J. M. Glover, Archt., Bankers Mortgage Bldg., drawing plans for 3 dwellings; \$25,000 or more each.

Tex., Houston—Thiel & Maddrey, Archts., Esperson Bldg., completing plans for dwelling near River Oaks; also drawing plans for 2 additional dwellings.

Tex., San Antonio—Mrs. Eleanor C. Clemens, care Marvin Eickenroht & Bartlett Cocke, Archts., Maverick Bldg., erect \$25,000 residence, Patterson and Argyle Sts., Alamo Heights; stone and stucco, 2 stories, 10 rooms, 3 baths, about 22x85 ft., steam heat.

Tex., San Antonio—F. A. Hornaday, 308 Augusta St., has low bid at \$41,455 from Aiken & Chittim for residence; Ralph H. Cameron, Archt., City Natl. Bank Bldg.; W. E. Simpson & Co., Engrs., Natl. Bank of Commerce Bldg. 1-3

Tex., San Antonio—Mrs. Frances Jeffers, St. Anthony Hotel, considers erecting 2-story residence, E. Rosewood St., Oakmont subdivision.

Tex., San Antonio—J. B. Chadwick, 125 Blue Star St., let contract to P. F. Allen, 510 San Pedro Ave., for residence, Olmos Park Estates; frame and stucco, 2 stories, 8 rooms, oak and tile floors, tile roof; Atlee B. & Robt. M. Ayres, Archts., Bedell Bldg.; W. E. Simpson & Co., Engrs., Natl. Bk. of Commerce Bldg. 1-3

Tex., Waco—D. L. Rose erect 17 brick dwellings, Algonquin Place, Coates addition.

Government and State

D. C., Washington—Congress approved bill providing \$900,000 for site and \$7,500,000 for building fireproof annex to House Office Bldg.; bill awaits President's signature.

La., Arabi—Commanding Officer, Q. M. Depot, Jeffersonville, Ind., receives bids Jan. 31 for brick lodge, Chalmette National Cemetery; plans, etc., upon application. 10-18

Tex., Fort Sam Houston, San Antonio—Constructing Quartermaster, Fort Sam Houston, receives bids Jan. 26 for gravel hangar line; 30x760 ft., asphalt topping.

Va., Fort Myer—Quartermaster, Fort Myer, advises recreation building project has been revoked. 1-10

Hospitals, Sanitariums, Etc.

Ark., North Little Rock, Little Rock—Following contractors estimating on acute building, including roads, walks and drainage, U. S. Veterans Hospital, bids Jan. 29 by U. S. Veterans Bureau, Arlington Bldg., Washington, D. C.: Stewart-McGehee Construction Co., Kahn Bldg., Little Rock, Ark.; V. L. Nicholson & Co., 613 S. Central St., Knoxville, Tenn.; A. C. Samford, Shepherd Bldg.; Algernon Blair, both Montgomery, Ala.; David Lupton's Sons Co., Allegheny Ave. and Tulip St., Philadelphia, Pa.; Hiram Lloyd, Synd. Tr. Bldg.; John V. Boland Construction Co., Chemical Bldg.; Johns-Manville Corp., 17th and Olive Sts.; Mesher Bros. Iron Co., 421 S. Sixth St.; Mureh Bros. Construction Co., Rwy. Exch. Bldg., all St. Louis, Mo.; Batson-Cook Co., West Point, Ga.; Lally-Rohlander Co., Inc., 1756 M St., N. W.; Crane Co., 1800 E St., N. W.; Otis Elevator Co., 810 18th St., N. W., all Washington; J. H. Reddick, Kennedy Bldg., Fort Smith, Ark.; Asphonse-Custodis Chimney Construction Co., 95 Nassau St., New York; International Heater Co., Utica, N. Y.; Virginia Engineering Co., Inc., First Natl. Bank Bldg., Newport News, Va.; Chas. Weitz' Sons, 713 Mulberry St., Des Moines, Iowa. 1-3

D. C., Washington—Dept. of Interior, E. C. Finney, First Asst. Sec., receives bids Jan. 31 for nurses' home, boiler house, employee's quarters and dining hall, including all outlets thereto, roads, sidewalks, grading, water, sewer, elect. lines, etc., Freedmen's Hospital; brick; nurses' home 3 stories; about \$200,000; J. Berrell, Archt.-Engr., Colo-

La., New Orleans—Charity Hospital has low bid at \$34,995 from Thos. H. Brockman for additions and alterations to Miles Amphitheater; Favrot & Livaudais, Ltd., Archts., Hibernia Bldg.

Tenn., Knoxville—Sisters of St. Mary, Chas. J. Guzzo, Chmn., Bldg. Comm., receives bids Feb. 4 for St. Marys Hospital, Oakhill Ave. and Kenyon St.; first unit \$300,000, 75 beds; ultimately 300 beds; Crowe & Schulte, Archts., 2436 Reading Road, Cincinnati, Ohio. 11-15

Tex., Dallas—Parkland Hospital call for bids in few days for 3-story addition to nurses' home; and additional story to 2-story hospital; \$200,000; auditorium, gymnasium; DeWitt & Washburn, Archts., Kirby Bldg. 9-13

Tex., San Antonio—City Comsn., C. M. Chambers, Mayor, and Bexar County Bd. of Commrs., Perry S. Robertson, County Judge, consider repairs and improvements to Robert B. Green Memorial Hospital.

Hotels and Apartments

Ala., Anniston—W. H. Peacock and B. N. Bussey, McRae, Ga., leased Alabama Hotel and make improvements.

Ala., Gadsden—A. P. Reich Hotel Co., Inc., A. P. Reich, Pres., receives bids Jan. 28 for 10-story and basement, 100x50 ft., brick, stone trim, fireproof, Georgian type, 150-room hotel, Broad and 7th Sts.; 14 shops, garage with 150-car capacity; D. O. Whildin, Archt., 515 N. 21st St., Birmingham. 1-3

Ark., Stuttgart—S. A. Lane, Pres., Southern Hotel Co., Rector Bldg., Little Rock, purchased Riceland Hotel; redecorate interior, install coffee room, provide telephones for all rooms and other improvements.

D. C., Washington—Minkoff & Smith, 1308 Decatur St., reported, erect \$500,000, 5-story brick 60-apartment, Georgia Ave. and Quincy St., N. W.; Geo. T. Santmyer, Archt., 917 15th St., N. W. 11-1

Fla., Jacksonville—C. E. Tandy, Daytona Beach, leased Aragon Hotel and expend \$15,000 to \$20,000 for improvements, including renovation of interior.

Fla., St. Petersburg—A. B. Vance, Mgr., Manhattan Hotel, advises will not make any improvements this year. 1-3

Ga., Atlanta—Loftis Plumbing Co., 440 Marietta St., repair brick building, 59 Mangum St., S. W.; \$10,000.

Md., Dundalk, Br. Baltimore—John Tevis Harwood, Roland Park, and associates, erect \$100,000, 3-story, brick, 20-apartment and 11-store building on Shipping Place; plans from Minter Homes Corp., Huntington, W. Va., and Dundalk.

Mo., Clayton, St. Louis—Sam Brown, 7533 Parkdale St., has permit for \$25,000, 37x75 1/2 ft., brick apartment, E. Wydown Forest.

Mo., Springfield—Hotel Kansas Operating Co., John S. Sweet, Pres., Topeka, Kan., advises report that Sweet Hotels would erect hotel at Springfield is not authentic. 1-3

Okla., Oklahoma City—F. W. Stoss has permit for \$14,000 brick apartment, 813 N. Walnut Ave.

Tenn., Memphis—J. J. Mackey, 1199 N. Parkway, has permit for \$15,000 brick veneer 16-apartment, 1011 Peabody St.

Tenn., Memphis—Theo Coltum and Elmer Harris, 1882 Autumn St., have permit for \$10,000, 2-story brick veneer apartment, 955 Woodlawn St.

Tex., Cuero—Management, Muli Hotel considering additional story.

Tex., Denton—F. C. Conner has permit to erect \$17,500, 2-story, brick veneer, 16-room apartment on W. Sycamore St. for M. E. Bethurum.

Tex., Fort Worth—J. E. Burton, Wheat Bldg., erect \$25,000, 2-story, cut stone hotel, Main and Front Sts.; Stewart Moore, Archt.

Tex., Georgetown—T. E. Smith, Box 353, Temple, plans 4-story hotel; details not determined. Davis Bros. incorrectly reported as having contract. 12-13

Tex., Houston—Chas. P. Jones & Co., Archts., Binz Bldg., preparing plans for apartment building.

Tex., Houston—Boyer Investment Co. erect \$69,000, 3-story, brick veneer, 24-apartment, Yoakum Blvd. and Berthea St.

Tex., Lubbock—Hilton Hotel Co., W. R. Irwin, Sec.-Treas., 1933 Main St., Dallas, reported, plans to start work about May 1 on \$700,000, 12-story, 200-room hotel.

Tex., Tyler—C. O. Dallet, Chmn. Comm., promoting erection \$225,000, 7-story, brick and rein. conc., 75-room hotel.

Tex., Waco—Lee Torrance and D. W. Bartlett, Provident Bldg., soon start work on 26-apartment on Elm St., East Waco for tourists; stucco.

Miscellaneous

Ga., Atlanta—Dr. Thos. P. Hinman, Chmn., Bldg. Comm., Fourth Natl. Bank Bldg., has low bid at \$9,000 from Gilbert Beers, Bona Allen Bldg., for 1-story and basement, 19x49 ft., brick, Indiana limestone trim addition to High Museum Bldg. on Peachtree road, N. E.; hardwood floors, built-up roof; Pringle & Smith, Archts., Norris Bldg. 1-10

Ga., Savannah—Froebel Circle plans to start work about February on Cohen Shelter for Little Ones at Fresh Air Home on Tybee Island; \$20,000; plans later to erect hospital unit and staff building.

Tex., San Antonio—Avalon Club Hotel Properties, Inc., Porter Loring, Pres., erect 2-story, rock and frame, semi-fireproof building, New Toll road, Medina Lake, to be leased to Avalon Country Club; Ralph Cameron, Archt., City Natl. Bk. Bldg.

Tex., Terrell—H. W. Garrett, Pres., Terrell Golf Club, erect clubhouse.

W. Va., Clarksburg—Masonic Country Club Assn., Fred E. Delbridge, Masonic Temple, plans clubhouse.

Railway Stations, Sheds, Etc.

Ky., Prestonsburg—Chesapeake and Ohio Rwy. Co., C. W. Johns, Ch. Engr., Richmond, Va., plans depot.

W. Va., Charleston—Chesapeake and Ohio Rwy. Co., C. W. Johns, Ch. Engr., Richmond, Va., and city of Charleston plan soon let contract for ramp on South Side passenger station.

Schools

D. C., Washington—Georgetown University, Dr. C. W. Lyons, Pres., Georgetown Heights, erect \$900,000 Medical-Dental Bldg., 40th St. and Reservoir Road, N. W.; 4 stories, 284x180 ft., steel and conc., slate finish roof, vapor heat, unit heaters; George A. Didden, Archt., Bond Bldg.; bids in. 9-20

D. C., Washington—District Commrs., Room 509, District Bldg., has low bid at \$50,000 from C. Harrison Smith, for combination gymnasium and assembly hall addition at Takoma School; A. L. Harris, Municipal Archt. 1-10

D. C., Washington—St. Joseph's Seminary, care Maglani & Walsh, Archts., 20 Providence St., Boston, reported, call for bids about Feb. 1 for \$350,000, 4-story, brick building, Webster, Farnum, 13th and 14th Sts.; G. A. Wescher, Mech. Engr., 1010 Vermont Ave., N. W. 11-15

Fla., Latana—Palm Beach County Bd. of Public Instruction, West Palm Beach, erect \$10,000, 4-room, tile and stucco elementary school; Wm. Manley King, Archt., Harvey Bldg., West Palm Beach; bids in. 1-10

Ky., Maysville—Bd. of Education erect school in Sixth Ward, school for negroes; also gymnasium and auditorium; \$119,000 bonds available.

La., Clinton—East Feliciana Parish School Bd., P. H. Dupuy, Supt., erect brick school.

Md., Baltimore—Public Improvement Comm., J. Leimbach, Ch. Engr., Municipal Office Bldg., ready for bids in about 3 months for \$175,000 addition to Grade School No. 84, Johnson and Heath Sts.; Edward H. Glidden, Jr., Archt., American Bldg.; C. L. Reeder, Mech. Engr., 916 N. Charles St. 1-5-28

Md., College Park—University of Maryland, S. Shoemaker, Chmn., Bldg. Comm., 816 Fidelity Bldg., Baltimore, ready for bids about Feb. 1 for \$200,000, 1-story, brick and steel library; Smith & May, Archts., Calvert Bldg.; H. Egli, Mech. Engr., 423 St. Paul St., both Baltimore.

Miss., Centerville—William Winans Institute Consolidated School Dist. voted \$40,000 to erect grammar school. Address Dist. School Trustees.

Miss., Clarksdale—Bd. of Education, H. B. Heidelberg, Supt., erect rein. conc., brick, stone trim junior high school and addition to Eliza Clark School and make other improvements; \$250,000 bonds voted; P. J. Krouse, Archt., M. & W. Bldg., Meridian. 1-3

Miss., Ellisville—Mississippi State Building Commn., W. C. Trotter, Sec., New State Capitol Bldg., Jackson, receives bids Jan. 23 for 7 buildings for Mississippi School and Colony for Feeble Minded to cost \$350,000; two 2-story, 50x150 ft., patient dormitories; 1-story, 52x102 ft., laundry building; 1-story, 82x112 ft., service building; 1-story, 50x100 ft., nursery; 2-story, 148x103 ft. school; 1-story, 52x62 ft. power house and smokestack; 1-story, 1x12 ft. pump house; brick, terra cotta trim, fireproof, comp. and tile roofs, wood, terrazzo and sand cement finished floors; Claude H. Lindsley, Archt., Lamar Life Bldg., Jackson. 1-3

Miss., Oxford—Following contractors estimating on cafeteria, law school, athletic field house and pump house to be erected at University of Mississippi, bids Jan. 23; Beckelheimer & Small, Hattiesburg; McArthur & McLemore, M.-W. Bldg., Meridian; C. V. Cox, Water Valley; Estes Reed, McGee & Son, I. C. Barber, all Jackson; Sanquist & Snow, Inc., Alexandria, La.; plans by Frank P. Gates, Archt., 507 Edwards Hotel Bldg., Jackson, call for rein. conc. brick, hollow tile, struct. steel, Indiana limestone and cast stone trim, built-up roofs. 12-27

Miss., Perkinston—Harrison County Bd. of Education, C. J. Darby, Supt., Gulfport, receives bids Feb. 5 for \$50,000, 2-story, brick and stone trim administration building for Agricultural High School and Junior College; built-up comp. roof, wood floors; plans from Vinson B. Smith, Jr., Archt., Bank of Gulfport Bldg., Gulfport. 12-20

Miss., Runnelstown, R. D. from Hattiesburg—School Trustees, W. A. Hensarling, rebuild high school noted destroyed by fire at \$20,000 loss.

N. C., Mineral Springs—Forsyth County Bd. of Education, T. H. Cash, Supt., Winston-Salem, having plans prepared by Northrup & O'Brien, Starbuck Bldg., Winston-Salem, for \$60,000, 1-story, brick, 12-classroom school. 11-8

N. C., Rural Hall—Forsyth County Bd. of Education, T. H. Cash, Supt., Winston-Salem, erect 4-classroom, brick veneer school.

Okla., Saint Louis—Pattawatomie County Bd. of Education, Miss Celestia Robinett, Supt., Tecumseh, erect school building.

Okla., Tulsa—Bd. of Education, W. H. Hindes, Sec., erect one-story brick additions to 5 schools; Leland I. Shumway, Archt., Alexander Bldg.

Tenn., Dayton—Rhea County Bd. of Education having plans prepared by R. H. Hunt Co., James Bldg., Chattanooga, for \$100,000 high school. 12-27

Tenn., Morristown—Hamblen County Bd. of Education considering erecting high school.

Tenn., Selmer—McNairy County Court authorized \$100,000 bond issue for school purposes. Address County Bd. of Education.

Tenn., Spring City—Rhea County Bd. of Education, Dayton, erect \$100,000 elementary and high school; R. H. Hunt Co., Archt., James Bldg., Chattanooga. 1-3

Tex., Alpine—Alpine Ind. School Dist. voted \$90,000 bonds; erect high school and remodel school on North Side and Maderia Ward School in South Alpine; Page Bros., Austin Natl. Bk. Bldg., Austin, and Brownsville. 1-10

Tex., Beaumont—French School Dist., C. H. Wooding, Pres., vote soon on \$35,000 bonds for school including 8 classrooms, library, cafeteria, administration offices and infirmary.

Tex., El Paso—Concordia School Dist., El Paso County, voted \$40,000 bonds for school library and auditorium. Address County School Bd.

Tex., Harlandale, San Antonio—Bd. of Education, M. L. Rees, 410 Pacific Ave., erect \$40,000, 1-story, brick and rein. conc., 11-classroom Morrell School; Morris & Noonan, Archts.-Engrs., Builders Exchange Bldg.; bids in. 11-29

Tex., Harlingen—School Bd., O. N. Joyner, Pres., selected Dewitt & Washburn, Kirby Bldg., Dallas, to prepare plans for \$270,000 Sr. High School.

Tex., Laredo—Laredo Ind. School Dist. considering \$200,000 bond election for school building program; having plans prepared by Gleescke & Harris, Archts., 207 W. Seventh St., Austin, for 12-room brick high school in Fourth Ward.

Tex., San Antonio—Los Angeles Heights Ind. School Dist. plans vote on \$150,000 bonds for high school. Address Dist. School Trustees.

Va., Chester—Chesterfield County Bd. of Education, T. C. Williams, Supt., receives bids Jan. 28 for 4-room and basement brick veneer addition to Broad Rock School near Branche's Church; plans at office W. W. La Frade & Bros., Real Estate Exchange, Richmond.

Va., Luray—Luray Magisterial Dist. may vote on \$150,000 bonds for school building. Address Dist. School Trustees.

W. Va., Morgantown—West University, Dr. John R. Turner, Pres., having plans prepared by Davis, Dunlap & Barney, 1805 Walnut St., Philadelphia, for 14-story building on campus; budget for funds for building pending in Legislature. 12-6

Va., Winchester—City votes Feb. 12 on \$100,000 for erecting and improving schools. Address Bd. of Education. 1-3

Stores

D. C., Washington—R. Lee Horton, 1200 Hamilton St., N. W., has permit for three 1-story brick stores, 5112-16 Georgia Ave., N. W.; \$12,000.

D. C., Washington—Sears, Roebuck & Co., R. E. Wood, Pres., Chicago, plans to start work soon on 3-story, rein. conc., brick, fireproof retail branch store, 15th and H Sts., N. E.

Ga., Atlanta—Hopkins, Campbell & Allen has low bid from Chas. Wm. Bernhardt, 250 Hunnicut St., for improvements to 2-story and basement, 42x155 ft., brick building, 25-27 E. Alabama St.; \$10,000; C. C. Whitaker, Const. Engr., Bona-Alten Bldg. See Want Section—Building Material and Equipment. 1-10

Ga., Atlanta—Following contractors estimating on 3-story and basement, rein. conc., brick, stone trim building on Peachtree St. near Cain for Singer Sewing Machine Co., Singer Bldg., New York, bids to be opened January 22; Carr Construction Co., Candler Bldg.; Barge-Thompson Co., 136 Ellis St., N. E.; A. J. Krebs Co., Walton Bldg.; J. S. McCauley & Co., Bona Allen Bldg.; C. A. D. Bayley & Co., Inc., Citizens and Southern Bldg.; Shelverton Construction Co., Bona Allen Bldg.; Griffin Construction Co., 452 Spring St., N. W., all Atlanta; built-up roof, conc., tile and terrazzo floors, steam heat; Hentz, Adler & Schutze, Archts., Candler Bldg.; Robert S. Fiske, Engr., Healey Bldg. 11-1

Ga., Atlanta—J. B. Campbell remodel second floor of 2-story rein. conc. and brick building, 189 Peachtree St., to be leased to American Plano Co., 584 Fifth Ave., New York; \$35,000. Install 2 elevators, elevator hatches and general interior changes; R. S. Monday, Archt., Norris Bldg.

Ga., Atlanta—S. M. Goldberg Co., 463 Seventh Ave., New York City, Adams-Cates Co., Renting Agts., Atlanta, call for bids about Feb. 10 for \$150,000, 2-story and basement, 100x100 ft., rein. conc., brick, stone trim, 5-story building on Peachtree St.; built-up roof, bronze fronts, plate glass; Morgan, Dillon & Lewis, Archts., Grant Bldg.

Ga., Atlanta—Atlanta Trust Co. erect 3-story building for stores. See Buildings Proposed—Bank and Office.

La., Many—John J. Blake erect brick store; W. P. Callway, Contr.

La., Many—Dick Silman erect brick building on Front St.; W. P. Callway, Contr.

La., New Orleans—Woodward Wight & Co., Ltd., 451 Howard Ave., erect 1-story, 60x130-ft., brick, hollow tile, frame and steel store, Washington Ave. and Broad St.; Emile Well, Inc., Archt., Whitney Bk. Bldg.; bids in. 11-29

La., New Orleans—Muller & Rizzo, 2015 Canal St., erect \$10,000 store and residence on Freshmen St.; tile and comp. roof.

La., Shreveport—Homer Jordan erect 2-story, 100x120-ft., rein. conc., steel and brick building, Marshall and Crockett Sts.; Clarence W. King, Archt., Giddens-Lane Bldg.

N. C., Greensboro—S. H. Kress & Co., 114 Fifth Ave., New York, considering erecting 4-story and basement building on S. Elm St.

N. C., Mt. Airy—A. Goldsmith rebuild block of 4 buildings destroyed by fire. 1-10

Tex., Brownsville—James Dickinson Co. has low bid at \$20,578 from W. H. D. Smith for 2-story, 48x80 ft., brick and hollow tile, cast stone store and apartment; Wm. D. Van Sclen, Archt. 1-3

Tex., Port Arthur—Abe Bluestein, 2949 Procter St., remodel 2-story, 50x140 ft., brick building, Procter and Fort Worth Ave., for addition to dry goods store; \$35,000.

Tex., San Antonio—Baker Hotel Co., care T. B. Baker, install new fronts, remodel interior fireproof store; Kelwood Co., Archt., Travis Bldg.; bids in.

Tex., San Antonio—A. C. Toudouze, 113 Main Ave., expend \$10,000 for remodeling 2-story building, 1200 block W. Commerce St.

Tex., San Antonio—Sang Bow Leung, 200 S. Concho St., has perm. for \$10,000, brick and conc. store, 1129 W. Commerce St.

Tex., San Antonio—Kaufman Dry Goods Co., 102 S. Flores St., has low bid at \$13,357 from Rodgers & Crosby for 1-story rear addition, mezzanine floor and general remodeling fireproof building; Harvey P. Smith, Archt.; Beretta-Stiles Co., Inc., Const. Engr., both Natl. Bank of Commerce Bldg. 1-3

Tex., Sherman—J. A. Ladd erect 1-story, 50x94 ft., brick business building, Walnut and Jones St.

W. Va., Bluefield—Industrial Building Corp., J. L. Alexander, 504 Frederick St., erect business building; A. B. Mahood, Archt., L. C. Bldg.

Theaters

Ky., Owensboro—Strand Amusement Co., Harry E. Matthews, Res. Mgr., remodel Empress Theater including enlarging lobby, Vitaphone and sound equipment, general improvements.

Ky., Owensboro—Strand Amusement Co., Lee L. Goldberg, Sec.-Treas., Louisville, Harry E. Matthews, Res. Mgr., erect \$250,000 combination theater and office building, 5th and Frederica Sts.; probably 5 stories, 1500 sq. ft. office space on each floor, theater to seat 2000 people; Carl J. Epping, Archt., 625 S. Third St., Louisville. 1-3

La., West Monroe, Monroe—Capt. H. M. Williams, Sr., Cotton St., erect \$10,000, 2-story, 60x76 ft. brick theatre on Cotton St.; seating capacity 600; to be operated by Timothy Newell.

Md., Laurel—J. E. Fetty, Main St., and associates, reported, organizing company to erect \$50,000, 1-story brick or hollow tile theatre on Washington Blvd.

Miss., Hattiesburg—Saenger, Inc., 1401 Tulane Ave., New Orleans, receives bids Jan. 21 for \$250,000, rein. conc., brick, steel and stone trim, fireproof theater, Forrest and Front Sts.; auditorium to seat 1500; Emile Weil, Inc., Archt., Whitney Bank Bldg., New Orleans; following contractors estimating: McArthur & McLeure, M.-W. Bldg., Meridian; W. G. Wetmore, Jackson; Massengale & McIntosh, Citizens Bank Bldg.; Oden & Glenn, both Hattiesburg; Dye & Mullings, Columbia; Smallman Construction Co., 1109 S. Fifth Ave., Birmingham, Ala.; Gauger-Korsmo Construction Co., 910 Fidelity Bank Bldg., Memphis, Tenn. 11-1

Tenn., Bristol—Bristol Amusement Corp., H. M. Pulford, Pres., plans soon start work on \$300,000 theater on State St., between 5th and 6th Sts.; seating capacity 2100. 11-29

Tex., Henderson—East Texas Theaters, Inc., R. H. Clemmons, Dist. Mgr., Lufkin, soon call for bids for \$75,000 theater; seating capacity 1500; several stores on ground floor; brick, steel, cast stone, comp. roof; Emile Weil, Inc., Archt., Whitney Bank Bldg., New Orleans. 12-27

Tex., Houston—Charles Wygant, 219 W. 26th St., erect \$14,000, rein. conc., hollow tile and brick theater on 19th St., between Ashland and Waverly Sts.

Warehouses

D. C., Washington—Federal Storage Co., R. B. Hall, V.-P., 1707 Florida Ave., N. W., reported, erect 5-story brick storage building, Florida Ave., N. W.

Fla., West Palm Beach—Standard Oil Co., erecting \$25,000, 2-story brick and stucco office and warehouse; owner building with own forces.

Ga., Atlanta—Lane Drug Stores, Inc., Geo. C. Munn, 50 Broad St., receives bids Jan. 19 for \$175,000, 2-story and basement, 213x125 ft., rein. conc., brick, Indiana limestone trim warehouse, store and office building, N. Boulevard and Forrest road, N. E.; Raymond C. Snow & Co., Inc., Archts., Bona Allen Bldg. 12-27

Tex., Houston—Binswanger & Co., 301 N. Second St., soon call for bids for 2-story, 90x150 ft., rein. conc., brick, stone trim warehouse; J. W. Dehnert, Archt., Esperson Bldg.

Tex., Houston—J. W. Northrop, Jr., Archt., Kirby Bldg., call for bids in 30 days on \$100,000 warehouse.

Tex., Houston—Hedrick & Gottlieb, Archt., Post-Dispatch Bldg., completed plans for 8-story warehouse on S. Main St.

Tex., Houston—Emma B. Neblett erect \$19,000 brick warehouse on Velasco St. near Harrisburg Blvd.

saw-tooth roofs; Beretta-Stiles Co., Inc., Engrs., Natl. Bank of Commerce Bldg.; McKenzie Construction Co., Contr., Travis Bldg.; work started.

Va., Richmond—City Council let contract at \$276,930 to Jones & Conquest for Dooley Memorial Library, First and Franklin Sts.; fireproof, 3 stories; exterior faced with limestone; Baskerville & Lambert, Archts., Travelers Bldg. 5-23

Va., Wytheville—Wythe County Bd. of Suprs., let contract at \$28,076 to Morris C. Miller & Son, Wytheville and Christiansburg, for 2-story, 39x70 ft., brick jail; Roanoke Bridge and Iron Works, Roanoke, at \$18,500 for steel fitting cells; G. R. Ragan, Archt. 12-13

Dwellings

Ala., Birmingham—Donald Comer, 4809 Altamont Road, remodel and enlarge residence; Miller & Martin, Archts., Title Guar. Bldg.; J. F. Adam, Contr., 901 Cotton Ave.

Ala., Birmingham—S. Y. Caldwell, 3308 Cliff Road, let contract to Ed Gourley, Title Guar. Bldg., for brick veneer residence, Rockridge Road; 2 stories, steam heat; Miller & Martin, Archts., Title Guar. Bldg. 10-11

Ala., Dothan—Wyatt Harris let contract at \$26,000 to Pyron Contracting Co., Montgomery, Ala., for brick veneer residence, Houston Heights; 2 stories, hardwood floors, brick foundation, tile roof; Hirsch & Jones, Archts., Montgomery. 1-3

D. C., Washington—W. C. & A. N. Miller, 1119 17th St. N. W., have permit for \$11,000 dwelling, 2925 Glover Driveway N. W.; 2 stories, brick; owners build.

Fla., Jacksonville—Geo. A. Follin, Atlantic Natl. Bank Bldg., started work on \$18,000 residence; English bond brick veneer, 2 stories, 54.10x42.8 ft., hardwood floors, brick and conc. foundation, Johns-Manville asbestos shingle roof; Bernard Wells Close, Archt., Bisbee Bldg.; Henry Taylor & Son, Inc., Contrs., 2057 Lackawanna Ave. 1-10

Ga., Atlanta—Mrs. Sarah Sullivan, 2513 Peachtree Road, N. E., erect 2 dwellings, 824-30 Helena St., S. W.; 7 rooms and baths, hardwood floors, comp. roof, hot air heat; \$10,000; day labor.

Ark., Trumann—H. A. Furest started work on residence, W. Main St.

Fla., Coral Gables, Miami—M. Clair Binney erect \$27,000 residence and garage, 701 Avenue Alcazar; 2 stories; F. N. Diegaarde, Contr.

Fla., Miami—J. M. Key rejected bids for residence, 35th St. and 18th Ave.; work by day labor; C. LeRoy Kinports, Archt., Coconut Grove.

Fla., Winter Haven—W. B. Follett let contract for \$29,000 conc. tile and stucco residence to John A. Rogers, Inc., 508 Bellevue Ave., Daytona Beach; 2 stories, 65x59 ft., rein. conc. foundation, tile roof; D. B. Hyer, Archt., Phillips Bldg., Orlando.

Ga., Atlanta—Harold Rogers, Pres., L. W. Rogers Realty Co., Wynne-Claughton Bldg., erect brick residence, Argonne Drive; 2 stories and basement, hardwood and tile floors, steam heat; DeFord Smith, Archt., Peachtree Bldg.; T. C. Wesley, Contr., Bona Allen Bldg.

Ga., Atlanta—W. H. Hamilton, Healey Bldg., erect 2 brick veneer dwellings, 29-33 Golf Circle, Ansley Park; 7 rooms and bath, hardwood and tile floors, comp. shingle roofs; \$13,000; owner builds.

Ga., Atlanta—H. Kuniansky, Healey Bldg., erect 2 brick veneer dwellings, 495-99 Adair Drive, N. E.; 1 story, 6 rooms and bath, hardwood floors, comp. shingle roof, hot air heat; owner builds.

Ga., Atlanta—L. M. Morris, East Lake Rd., N. E., erect brick veneer residence, 2066 McLendon Ave., N. E.; 1 story, 6 rooms and bath, hardwood floors, comp. shingle roof, hot air heat; owner builds.

Ga., Atlanta—William Wilson Co., Bona Allen Bldg., has contract for painting and decorating in connection with remodeling of Piedmont Hotel; Southern Ferro Concrete Co., Gen. Contr., 70 Ellis St., N. E.; Pringle & Smith, Archts., Norris Bldg. 1-10

La., New Orleans—A. V. Herman, Contr., First St. and Orleans Pkwy., erecting dwelling, Homedale and Rosemary Sts., Lakeview.

La., New Orleans—L. T. Lartigue, 1934 Desire St., erect single raised residence, Desire and Pety Sts.; Chris P. Nehlig, Contr., 1414 Desire St.

La., New Orleans—Percy J. Marchand, Contr., 2922 Audubon St., erect duplex, 3637 Magazine St.

La., New Orleans—W. W. Desemar, Contr., 2714 Holly Grove St., ready about 10 days for sub-bids on 3 double dwellings, Holly Grove and Belfast Sts.

BUILDING CONTRACTS AWARDED

Association and Fraternal

Tex., Arlington—Grand Chapter, Order of Eastern Star, let contract to Geo. Moore, Slaughter Bldg., for \$20,000 fireproof office bldg.; brick and conc., 2 stories, about 56x51 ft.; Will N. Noonan Co., Archt., Bldrs. Exch. Bldg., San Antonio.

Bank and Office

Ga., Atlanta—Wm. Wilson Co., Inc., Bona Allen Bldg., has painting and decorating contract for \$750,000 Rhodes-Haverty Bldg.; Pringle & Smith, Archts., Norris Bldg.; Southern Ferro Concrete Co., Contr., 70 Ellis St., N. W. 1-10

La., New Orleans—New Orleans Refining Co., United Fruit Bldg., let contract to Dudley & Winkle Construction Co., Stern Bldg., for office building, Norco; rein. conc., brick, stone trim, 2 stories, conc. and oak floors, struct. steel and iron work, Flintkote roof; Weiss, Dreyfous & Seiferth, Archts., Maison Blanche Bldg.

Mo., St. Louis—Chain of Rocks Kingshighway Bridge Co., Central Natl. Bk. Bldg., erect \$14,000 toll house office bldg., Riverview Drive; brick, 2 stories, 29x47 ft., comp. roof; B. L. Brown, Archt.; Myers Construction Co., Contr., both Merchants-Laclede Bldg.

N. C., Asheville—Wachovia Bank & Trust Co., Col. F. H. Frues, Pres., Winston-Salem, let contract to Hoggson Bros., 485 Fifth Ave., New York, to remodel 4-story Drhumor Bldg.; \$200,000, 4 new vaults; banking quarters on first 2 floors, offices above; plans by Contrs.; Brown Engineers & Surveyors Co., Engrs., 45 Market St., Asheville. 11-22

N. C., Greensboro—Standard Life Insurance Co. expend \$20,000 to remodel bldg., 107 W. Gaston St., for E. A. Pierce & Co., Cotton Hotel Bldg.; C. C. Hartmann, Archt.; Geo. W. Kane, Contr., both Jefferson Bldg.

Churches

Ala., Fairfield—Protestant Episcopal Church let contract to D. T. Underwood, Pioneer Bldg., Birmingham, for frame building; 1 story, comp. roof; Miller & Martin, Archts., Title Guar. Bldg., Birmingham. 11-29

Ky., Louisville—Fourth Avenue Presbyterian Church let contract for \$200,000 bldg. to Wortham Construction Co., Starks Bldg.; remodel parish house; Colonial type, 64x116 ft., bell tower; auditorium and balcony seat 900; 4 cut stone columns, organ, forced air heating and ventilating system; E. T. Hutchings, Archt., 418 S. Fifth St.; G. M. Grimes and Ed. R. Gregg, Asso. Archts. 12-27

La., Opelousas—Hebrew Congregation, M. Hirsch, Chmn., Bldg. Comm., let contract to

Homer Ventre for synagogue; rein. conc., brick, stone trim, 1 story, 30x56 ft., built-up comp. roof; Herman J. Duncan, Archt., Alexandria. 7-5

Miss., Pass Christian—Baptist Church started work on frame and stucco building, Second St. near Davis; 30x60 ft.; seat 250; Victor Hansen, Archt.-Contr.

Mo., St. Louis—Church of the Little Flower, Rev. J. A. Tammany, Pastor, 7766 Gissler Ave., Richmond Heights, erect bldg., Boland Place near Arch Terrace; Hellmuth & Hellmuth, Archts., 119 N. Seventh St.; probably call for bids in Summer.

N. C., Winston-Salem—Reynolds, Inc., Reynolda, N. C., has plumbing and heating contract for \$600,000 St. Paul's P. E. Church under constr.; wiring, Everready Electric Co., N. Trade St., Winston-Salem; marble and tile, McClamroch Co., 406 S. Davis St.; roofing, Budd-Piper Roofing Co., both Greensboro; Cram & Ferguson, Archts., 248 Boylston St., Boston, Mass.; Harold Macklin, Asso. Archt.-Contr. Supvr., Realty Bldg., Winston-Salem; Jacob & Youngs, Inc., Contrs., 120 W. 32nd St., New York. 3-8

Tenn., Somerville—Presbyterian Church let contract to J. A. Morton, Williston, for Sunday school annex; brick; install heating plant for entire building upon completion of annex.

City and County

Fla., Miami—City let contract to C. W. Noel, 37 N. E. First Ave., to remodel old city hall annex, W. Flagler St.

Fla., Ocala—City started work on police sub-station, Magnolia St. and Broadway; Fisher & Reece, Contrs.

Tenn., Nashville—Davidson County Highway Comm. let contract at \$84,599 to E. G. Holladay, 151 Fourth Ave., N., for workhouse; plumbing and heating, Gowans-Halley Co., Inc., 165 Second Ave., S., at \$22,711; steel cells, Van Dorn Iron Works Co., 2685 E. 79th St., Cleveland, Ohio, at \$34,422; Asmus & Clark, Archts., Nashville Tr. Bldg. 1-10

Tex., Alvin—City started work on \$20,000 city hall; 2 stories, 41x35 ft., conc. and wood floors, conc. foundation, built-up roof; W. C. Blair, Alvin, and Curtis & Thomas, Post-Dispatch Bldg., Houston, Archts.; Freeman & Ferguson, Contrs., Goose Creek. See Want Section—Building Material and Equipment 1-10

Tex., San Antonio—City, C. M. Chambers, Mayor, having plans drawn by Phelps & DeWees, Archts., Gunter Bldg., for 2 exhibition buildings, International Exposition and Live Stock grounds, E. Houston St.; rein. conc., 1 story, 190x251 ft. each, about 50,000 sq. ft.,

La., New Orleans—D. B. Williams, Versailles Blvd., erect \$51,000 raised residence; brick veneer, 2-story solarium and dining, 59.4x116 ft., marble, oak, tile and rubber floors, conc. foundation, tile roof; Lawrence Newton, Archt., Whitney Bk. Bldg.; W. W. Desmar, Contr., 2714 Holly Grove St. See Want Section—Building Material and Equipment. 1-10

La., New Orleans—Peoples Homestead Assn., 327 St. Charles Ave., erect \$10,500 dwelling, Vincennes Place; Edwin L. Markel, Contr., 3838 Louisiana Pkwy. 1-10

La., New Orleans—S. D. Collier erect double raised residence, 4216-18 S. Derbigny St.; Geo. Lupo, Contr., 4925 S. Tonti St.

Md., Baltimore—Leonard Meninger erect 3 frame dwellings, 7308-12 Harford Road; 2 stories, 22x26 ft., hot water heat; \$10,000; Harry Blakely, Archt.-Contr., Walker Ave., Govans.

Md., Silver Spring—North Washington Realty Co., E. Brooke Lee, Treas., start work on dwellings in Spring; probably 30 under constr. during 1929.

Mo., Clayton, St. Louis—Sol Lowenstein, 1710 Glenchort St., erect 20 brick dwellings, Glenchort St.; 30x25 ft.; \$50,000; C. D. Aamus, Contr., Pattonville.

Mo., Kirkwood, St. Louis—Osage Development Co. erect \$15,000 residence, Osage Hills; brick face and hollow tile, 39x39 ft., 2 stories, slate coated roof, hot water heat; Jas. L. Wellingham, Archt.; Ed Klaustermeier, Contr., 919 Simmons St.

Mo., Kirkwood, St. Louis—W. C. Carl, 3016 N. Park Drive, East St. Louis, Ill., erect 6 dwellings, Rose Hill Terrace subdivision; conc. block and brick, 25x36 ft., 1 story, slate coated roof, hot air heat; \$4500 each.

Mo., University City, St. Louis—Roy Page, 1344 Waldron St., erect \$20,000 brick residence, 516 Purdue St.; 1½ stories, 38x42 ft., slate roof, hot water heat; Gilbert C. Karst, Archt., 1390A Clara St.; owner builds.

Mo., University City, St. Louis—Mrs. A. Weiss, 3832 Cleveland St., erect \$12,000 brick residence, 524 Midvale St.; 2 stories, 40x35.2 ft., slate roof, steam heat; C. N. Jacobs & Co., Archts.-Contrs., 1010 S. Jefferson St.

Tenn., Memphis—C. M. Jacobson & Co., First Natl. Bank Bldg., erect 31 brick and stone bungalows, Magnolia apts. on McLemore Ave., connection with development; work start within 60 days.

Tex., Austin—R. A. Cox, 32nd and Waller Creek, let contract at \$20,000 to J. J. Wattinger, 812 Patterson St., for Colonial residence; brick veneer, 2 stories, 48x34 ft., hardwood floors, conc. foundation, asbestos roof; H. F. Kuehne, Archt., Littlefield Bldg. See Want Section—Building Material and Equipment. 12-16

Tex., Houston—W. P. Claypool, 903 Pierce St., erect \$10,000 residence, E. Alabama St. near Hutchins St.; brick veneer, 2 stories; E. Pearce, Contr., 2508 Prospect St.

Tex., Houston—Harry E. Richards, Development Mgr., Braeswood Corp., erect \$27,000 residence, Braeswood; English type, 2 stories, brick veneer, 8 rooms, 2 baths, hardwood floors, gas-steam radiation heat; Carl A. Mulvey, Archt., Second Natl. Bank Bldg.; Albert A. Bertelsen, Contr., 506 Rosalie St.

Tex., San Antonio—A. B. Alvey, care Uvalde Rock Asphalt Co., Frost Natl. Bk. Bldg., will let contract at \$12,422 to S. A. Lynch for residence; frame and stucco, 2 stories, 7 rooms, 2 baths; Glenn C. Wilson, Archt., Milam Bldg.

Government and State

Fla., Green Cove Springs—Fredk. H. Lewis erecting \$7000 brick building for post office; after plans by R. O. Wheeler; 1 story, 32x68 ft., wood floors, conc. foundation, built-up roof; furnishings, equipment, etc., \$3500; owner builds. 1-10

Ga., Fort Benning—Constructing Quartermaster, Lieut. W. M. Allison, let contract for Units A, B, C and D, to be called Barracks No. 2, to James C. Miller Co., Campbellville, Ky., at \$310,000; \$300,000; A and B 4 stories and basement, 154x50 ft., with two 60x50-ft. wings; C and D 3 stories and basement, 240x50 ft.; rein. conc. brick walls, stone trim, built-up roof, steam heat; pipe tunnel, storm and sanitary sewers and water connection. 1-3

Miss., Mendenhall—Miss Ada Duckworth erecting 2-story bldg. to house post office.

Okla., Fort Sill, Lawton—Oklahoma City Chamber of Commerce is cooperating with Fort Sill officers for memorial recreation hall; tentative plans call for structure to seat 4000 or 5000, providing athletic rooms, etc.

Hospitals, Sanitariums, Etc.

D. C., Washington—United States Veterans Bureau, Arlington Bldg., let contract at \$13,000 to Virginia Engineering Co., First Natl. Bank Bldg., Newport News, Va., for steam distribution system, U. S. Veterans Hospital, Mt. Alto.

Ky., Lakeland—State Bd. of Charities and Corrections let contract at \$71,000 to Eustace Williams, Anchorage, for dining room and dormitory, Central State Hospital.

La., Alexandria—H. D. Foote Lumber Co. has lumber contract for \$1,500,000 U. S. Veterans Hospital; aggregates, Gifford-Hill & Co., Inc., North Texas Bldg., Dallas, Tex.; orna. iron, Decatur Iron & Steel Co., Decatur, Ala.; tile, Birmingham Hollow Tile Co., 2024 Fourth Ave., N., Birmingham, Ala.; Acme Brick & Tile Co., N. R. Anderson Bldg., Fort Worth, Tex., and Humboldt Brick & Tile Co., Humboldt, Kan.; bricklayers cement, Southern Cement Co., American Tr. Bldg., Birmingham; marble, Vermont Marble Co., Proctor, Vt.; millwork, Victoria Lumber Co., 119 Spring St., Shreveport, La.; cast stone, Pyramid Stone Co., National & Center Sts., Houston, Tex.; rubber tile, Goodyear Rubber Co., Akron, O.; linoleum, Certain-Teed Products Co., Second and Erie Ave., Philadelphia, Pa.; N. P. Severin & Co., Contr., 222 W. Adams St., Chicago. 10-18

Mo., St. Louis—Sodemann Heat and Power Co., 2306 Morgan St., has heating contract for \$1,000,000 Evangelical Deaconess Home and Hospital; plumbing, J. A. McBride Mechanical Equipment Co., 2639 Locust St.; wiring, Chas. J. Sutter, 1303 Pine St.; T. P. Barnett Co., Archt., Arcade Bldg.; Taxis & Becker, Struct. Engrs., Chemical Bldg.; Dickie Construction Co., Contr., Louderman Bldg. 1-3

Okla., Oklahoma City—Dr. Marvin E. Stout, Med. Arts Bldg., let contract to Jack Gill for \$150,000 hospital, 13th and Robinson Sts.; brick, stone and rein. conc. 3 stories; A. L. Christenberry, Archt., 1811 E. Twenty-fifth St. 12-20

Tenn., Southport—Brunswick County Community Hospital let contract to A. J. Robbins for \$25,000 hospital. 1-10

Hotels and Apartments

D. C., Washington—Bellevue, Inc., care District Investment Co., 1010 Vermont Ave., N. W., reported, let contract to R. P. Whitty Co., 1010 Vermont Ave., N. W., for \$800,000, 8-story, 230-room Bellevue Hotel, 11-19 E St., N. W.; Pierson & Wilson, Archts., Hill Bldg.; work started.

Ga., Atlanta—Following sub-contracts awarded in connection with remodeling Piedmont Hotel: Terra cotta, Atlanta Terra Cotta Co., Citizens & Southern Bk. Bldg.; struc. steel, Austin Bros. Bridge Co., 1195 Mickleberry St., S. W.; plumbing and heating, O'Pray Heating & Plumbing Co., 163 Cotton Ave., Macon; wiring, Sam Donelson, 101 Marietta St., N. W.; painting, Wm. Wilson Co., Inc.; marble work, Georgia Marble Co., both Bona Allen Bldg.; tile and terrazzo, Standard Tile Co., Zanesville, Ohio; sheet metal and ventilation, C. A. McGinnis Co., 136 Krog St., N. E.; store front construction, F. J. Coledge & Sons, 12 Forsyth St., N. W.; Southern Ferro Concrete Co., Gen. Contr., 70 Ellis St., N. E.; Pringle & Smith, Archts., Norris Bldg. 1-10

Miss., Hattiesburg—Following additional sub-contracts awarded on \$500,000, 9-story hotel for Forrest Hotel, O. M. Gwin Construction Co., Gen. Contr., Union Indemnity Bldg., New Orleans; Cement, Hawkins Hardware Co., 100 E. Pine St.; common brick, American Brick Co.; excavation, J. S. Holloway, 610 W. Pine St.; face brick, Hattiesburg Handle & Lumber Co., Petal, Miss.; sand and gravel, Concrete Gravel Co., Carter Bldg.; rein. steel, McNulty-Klein Co., Wainwright Bldg., St. Louis; Geo. D. Barnett, Inc., Archt., Syndicate Trust Bldg., St. Louis; E. C. Heaton & Son, Asso. Archts., 201 W. Pine St., Hattiesburg. 11-29

Miss., Jackson—T. M. Tharp erect \$75,000, 3-story, brick and frame, 16-apartment on N. State St.; owner builds; H. D. Breeding, Archt., 110½ N. 21st St., Birmingham, Ala. 1-10

Mo., Kansas City—Charles E. Phillips, 600 Victor Bldg., started work on 2 apartment buildings, 49th and Summit Sts.; terra cotta and tile; Mrs. Nellie E. Peters, Archt., 1006 Orear-Leslie Bldg.

Mo., St. Louis—W. Loomstein, 5944 De Giverville St., erect \$25,000, 2-story, 86x94-ft. brick tenement, 5380-86 Wabada St.; comp. roof; owner builds.

Mo., St. Louis—C. R. Hyle, 3931 Wyoming St., erect \$10,000, 2-story, 28x50-ft. brick tenement, 3908 Fillmore St.; slate roof; Meier & Meng, Bldrs., 1039 Marion St.; O. J. Popp, Archt., Arcade Bldg.

Mo., St. Louis—J. Lamping, 3961 Delor St., erect two 2-story, 50x33-ft. brick tenements, 4570-72 Loughborough St.; \$22,000; tar and gravel roofs, hot air heat; owner, Archt.-Bldr.

Mo., University City, St. Louis—Nash Construction Co., 6600 Delmar Ave., erecting 2-story, 70x120-ft. brick, 4-family tenement, Perdue and Pershing Sts.; slate roof; W. W. Sabin, Archt., 5816 Enright St. See Want Section—Building Material and Equipment.

Mo., University City, St. Louis—D. L. Brockman, 528 Warder St., erect \$10,000, 2-story, 27x52 ft., brick tenement, 7227 Amherst St.; comp. shingle roof, hot water heat; owner builds.

Mo., University City, St. Louis—L. J. Patch, Grand and Chouteau Aves., erect \$20,000, 46x73 ft., brick, 4-tenement, 400 Perdue St.; tile and comp. roof, steam heat; W. W. Sabin, Archt., 5816 Enright St.; owner, Bldr.

Mo., University City, St. Louis—E. J. Peterson, 8106 Washington St., has permit for two 2-story, 27x48 ft., brick flats and 1-story, 18x19 ft. garages, 7015-19 Tulane St.; \$18,000; conc. tile roofs, hot water heat; owner builds.

Okla., Oklahoma City—W. B. Skirvin Hotel, reported, let contract to Campbell & Price, 603½ W. Main St., for \$400,000, 4-story, 100x300 ft., rein. conc. and brick addition; Layton, Hicks & Forsythe, Archts., Braniff Bldg. 12-27

Okla., Oklahoma City—Oklahoma Building Co., C. E. Colcord, Pres., 421 W. 13th St.; J. B. Landers, Sec., soon have plans completed by Hawk & Parr, First Natl. Bank Bldg., for 25-story, 150x140 ft., 800-room Biltmore Hotel, Grand and Harvey Aves., and 8-story, 100-ft. frontage automobile hotel adjoining; \$4,000,000, brick and marble, comp. roofs, steam heat; Reinhart & Donovan, Contrs., Trades Natl. Bank Bldg.; to be leased to Bowman Management, Inc., New York. 12-13

Tenn., Chattanooga—A. A. Drago, Hamilton Bk. Bldg., completed foundation for Jefferson Apartments, E. Fifth and Lindsay Sts.; Signal mountain pink sandstone foundation, rough texture and buff-colored brick, cut stone trim, fireproof, electric refrigeration, hardwood floors, tiled baths.

Tenn., Knoxville—B. H. Sprinkle, 422 W. Union Ave., started work on 2-story, brick 10-apartment on E. Clinch Ave.; also plans to start work in 90 days on 2-story, brick, 8-apartment, Rose Ave. and Margaret St.; electric refrigeration.

Tex., Houston—Hugh Wilkin, 707 Taft St., start work about Feb. 1 on \$85,000, 2-story, brick veneer 28-apartment, 1400 block Waugh drive.

Tex., Waco—Raleigh Hotel, Joe L. Nix, Mgr., let contract at \$11,065 to A. L. Bradley, 2225 Homan Ave., for remodeling 12-story hotel; Henry T. Phelps, Archt., Hicks Bldg. 1-3

Va., Richmond—Following sub-contracts awarded on \$2,000,000 John Marshall Hotel, Fifth and Franklin Sts., for Richmond Hotels, Inc., Thos. Gresham, Pres., American Natl. Bk. Bldg.; Wise Granite & Construction Co., Inc., Gen. Contr., American Natl. Bk. Bldg.; Ornamental Iron, Richmond Structural Steel Co., Inc., 17 Dock St.; limestone, Bloomington Limestone Co., Bloomington, Ind.; floor system, John T. McCoy, Inc., 551 Fifth Ave., New York; Marcellus E. Wright, Archt., American Natl. Bk. Bldg. 10-11

Miscellaneous

La., New Orleans—Following additional sub-contracts awarded on Young Men's Gymnasium Club Bldg., N. Rampart and Blenville Sts., for which R. P. Farnsworth & Co., Maritime Bldg., has general contract at \$239,100: Tile roofing, Brandin Slate Co., Inc., 227 Dauphine St.; granite, Southern Builders Material Co., Inc., Maison Blanche Bldg.; plastering, Moroney & Middleton, Canal Bank Bldg.; sheet metal work, Acme Blow Pipe and Sheet Metal Works, 713 Magazine St.; steel sash, protected windows and double hung windows, J. T. Mann & Co., Inc., 319 Dryades St.; Diboll & Owen, Archts., Canal Bank Bldg. 1-10

Mo., St. Louis—Kingshighway Bridge Co., care John R. Scott, Merchants Laclede Bldg., let contract to Myers Construction Co., Merchants Laclede Bldg., for \$15,000, 2-story and basement, 30x47-ft. brick and rein. conc. toll house; Baxter L. Brown, Archt., Merchants Laclede Bldg.; Edward Fay, Engr., Fullerton Bldg.

Tex., San Benito—Joe G. Ballenger let contract to R. W. Briggs & Co., Pharr, for \$20,000, 1-story, 100x90 ft., brick, hollow tile and conc. implement show room; built-up roof.

Schools

Mo., Baltimore—St. Mary's Seminary, Rev. J. F. Felon, Pres., Paca and St. Mary's St., let contract to H. T. Booth & Co., Denrike Bldg., Washington, for 1-story, brick power house, Roland Ave. and Belvedere Aves.; Maginnis & Walsh, Archts., Statler Bldg., Boston; Geo. Weschler, Engr., 1010 Vermont Ave., N. W., Washington. 12-27

Mo., University City, St. Louis—J. Sheehan Plumbing Co., 1609 Olive St., has contract for plumbing and Laclede Steel Co., Arcade Bldg., 400 tons rein. steel for \$550,000 high school for which Murch Bros. Construction Co., 1756 Railway Exchange Bldg., has general contract; Ferrand & Fitch, Archts., 6188 Delmar Blvd. 1-3

Stores

Ala., Jasper—Keeton Massey Lumber & Supply Co., Contr., started work on \$16,000, 2-story brick store.

Ark., McGehee—Laurence Wolfe, Tillar, started work on Wolfe Bldg., under direction of W. E. Leek, Dumas; \$60,000; 2 stories, brick and stone, built-up roof, conc. and pine floors, stone trim, steam heat; Ray Burks, Archt., Home Insurance Bldg., Little Rock.

D. C., Washington—Potomac Freight Terminals Co., Col. Wrisley Brown, Pres., 4½ and D Sts., S. W., let contract to M. A. Long Co., Albee Bldg., Washington, and 10 W. Chase St., Baltimore, for 34 produce stores, Water and 12th Sts.; \$500,000, 2 stories, 80x20 ft., each with 20-ft. loading platform extending full length, brick, rein. conc. and steel, arcade effect, Colonial design; W. H. Cookman, Archt., Philadelphia, Pa.; A. P. Clarke, Jr., Asso. Archt., 818 14th St., N. W. 11-15

D. C., Washington—Oscar Baum, 1108 Connecticut Ave., N. W., has permit to erect \$28,000, 2-story addition to building under construction at 1734 L St., N. W.; Lewis Engineering Construction Co., Contr., 7th and K Sts., N. W.; J. Wenig, Archt., 725 10th St., N. W. 10-11

Fla., Jacksonville—William P. Belote, Myrtle Ave., South Jacksonville, excavating for \$13,500, 4-unit store on St. Johns Ave. near Hendricks Ave., South Jacksonville; J. C. Pritchard, Contr., St. Johns Park.

Fla., Orlando—Harry P. Leu, Inc., Box 1710, erecting \$50,000, 2-story, 100x185 ft., steel, brick, stone trim store and office, 100-05 W. Livingston Ave.; A. B. Struble, Contr.; David Hyer, Archt. 1-10

Ga., Atlanta—Healey Real Estate & Improvement Co., Healey Bldg., let contract at \$30,000 to W. H. George, 416 Bona Allen Bldg., for improvements to 2-story brick and conc. building, 85 Alabama St., S. W.; tar and gravel roof.

Ga., Atlanta—Geo. W. Felker, care Otto Fell, Empire Bldg., let contract to W. H. George, 416 Bona Allen Bldg., for alterations to 2-story brick and conc. building, 71-75 Alabama St., S. W.; \$20,000; tar and gravel roof.

La., Many—Sabine Wholesale Grocery Co., erect 80x100-ft. store; Ernest Jackson, Contr.

Miss., Natchez—Furniture Installment Co., B. Q. Millette, 501 Franklin St., soon start work on remodeling building; T. F. Graves, Contr.

Mo., Kansas City—Following sub-contracts awarded on 5-story annex to store, 1116 Walnut St., for Klines, Inc., 218 W. 40th St., New York, for which Swenson Construction Co., Shubert Bldg., has general contract: Electric wiring, Wyandotte Electric Co., 1613

Central St.; rein. steel, Concrete Engineering Co., Walsix Bldg.; terra cotta, Western Terra Cotta Co., Second and Franklin Sts., all Kansas City; interior mill work, Julius Kaaz Manufacturing Co., Leavenworth, Kan.; Wm. H. Bovard, Archt., Orear Leslie Bldg. 12-13

Okla., Oklahoma City—George Riley, 1622 W. 22d St., started work on \$25,000, 65x150 ft., brick store; owner builds.

Okla., Oklahoma City—Mrs. Della Greiner let contract to Dennehy Construction Co. for \$36,000 brick store and apartment; C. L. Monnot, Archt., Magnolia Bldg.

Okla., Wewoka—Ira J. Banta started work on 2-story, 75x120 ft., brick, steel and conc. store and office; comp. roof, conc. floors; Engle & Roberts, contract at \$49,556; The Butler Co., Archt., Herskowitz Bldg., Oklahoma City. See Want Section—Building Material and Equipment. 1-11

S. C., Greer—R. Perry Turner and Carl Ponder started work on drug store to be operated by Dr. J. E. Bost, Atlanta.

Tenn., Nashville—Mrs. Ella Kirkman Douglas, 8th Ave. and Douglas St., started work on \$10,000, 1-story, brick store, 2043 Eighth Ave. S.; Farrar & Holt, Contrs.; Edwin Keeble, Archt. 1-3

Tex., San Antonio—Dr. P. I. Nixon, Medical Arts Bldg., let contract at \$27,624 to J. L. Dickey, 216 Eleanor St., for 1-story, brick, tile and rein. conc. store, San Pedro and Euclid Sts.; Adams & Adams, Archts., Real Estate Bldg. 1-10

Warehouses

Va., Richmond—Southern Asbestos Manufacturing Co., A. L. Mull, Pres., 14 Governor St., erect 2-story office and warehouse, 306 E. Main St.; owner builds with own forces.

WANT SECTION

THE CLASSIFICATIONS IN THIS SECTION ARE:

Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.

Machinery and Supplies

Concrete Mixing Truck.—Philip H. Kline, 218 Walker Bldg., Greenville, S. C.—Wants prices and data on concrete mixing truck, which receives dry aggregate and cement from a central location and by means of revolving mixer operated by truck motor the concrete is prepared while en route to point of use.

Hoop Machinery.—R. L. Muse & Co., Jonesboro, Ark., expect to rebuild burned lumber plant and want prices and data on good, used machinery.

Hoist and Derrick.—H. P. Guion, 50 Church St., New York City—Wants prices and data on 2 American hoists and derricks, 7x12 single drum, double cylinder, cargo hoists with reversing throttle.

Laundry Equipment.—Thos. M. Street, 72 72 E. Market St., Wilkesbarre, Pa.—Wants prices and data on machinery for modern steam laundry to do business of \$1,000 per week.

Locomotive (Gasoline).—Shartle Machine Co. (Machinery and Power Plant Equipment), 359-369 Dublin Ave., Columbus, Ohio.—Wants prices and data on good gasoline locomotive, standard gauge, Plymouth preferred.

Motor (Squirrel Cage).—R. P. Johnson (Mchy. Dealer), Wytheville, Va.—Wants prices and data on second hand squirrel cage motor, 50 h. p., 440 volt, 3 phase, 60 cycle, 1200 R. P. M., with base and hand starting compensator, having overload and undervoltage protection; first class condition.

Pumps, Gas Tanks, etc.—Square Deal Tire Co., Inc., Main and Washington Sts., Enid, Okla.—Wants prices and data on pumps, gas tanks, etc.

Railroad Gondolas.—W. M. Smith & Co., Sam Smith, First Ave., 46th to 48th St., Birmingham, Ala.—Wants prices and data on two all-steel railroad gondolas, 70-ton capacity, preferably self-clearing type.

Steam Engine.—Gray Bros. Excelsior Co., Woodford, Va.—Wants prices and data on steam engine, 90 to 100 h. p., prefers center crank.

Tinners Tools.—Henry Perry, Box 396, Lakeland, Fla.—Wants prices and data on tinners tools suitable for making door checks.

Trailer.—G. Y. Carpenter, Chester, Va.—Wants prices and data on trailer, 5 to 10-ton capacity, drop frame, platform, not less than 8x10 ft.

Warehouse Truck.—Binswanger & Co., Leonard G. Barnes, 301 N. Second St., Houston, Tex.—Wants prices and data on warehouse trucks, interested in Jacklift truck and other similar types.

Welding Outfit.—Wilmington Iron Works, E. Z. King, Sec. and Treas., Wilmington, N. C.—Wants prices and data on 200 ampere, portable electric welding outfit, gas engine driven.

Guyana Machine Shops, B. Shell, Pres., Logan, W. Va.—Wants prices and data on following:

(1) **Pulleys**—steel split, diameters 12, 14, 16 to 18 in.

(2) **Transformers**—60 cycle, 2300 and 6600 to 220-440 volts, size 5 KV-A. to 50 KV-A.

J. S. Thomas, Mayor, Norphlet, Ark., wants prices and data on following:

(1) **Generator Set**—to furnish current for twenty 100 CP street lights

(2) **Tank and Tower**—steel water tank and 40 ft. tower.

Big Chief Refining Co., Godchaux Bldg., New Orleans, La., and 104 W. Seventieth St., New York, wants information on modern oil refining equipment and will open bids between middle and end of Feb. for sub-contracts on all classes of work in connection with construction of refinery, including:

(13) **Bubble Towers**

(2) **Continuous Acid and Doctor Treaters**

(3) **Pumps (Hot Oil)**

(4) **Pipe Work**

(5) **Tanks and Stills.**

Miscellaneous.

Cellu-Cotton.—Cleanosol Mfg. Co. (Manufacturers of Cleanosol), 611 Central Ave., P. O. Box 1355, St. Petersburg, Fla.—Wants prices and data on cellu-cotton.

Door Check.—Henry Perry, Box 396, Lakeland, Fla.—Wants to contract with firm for manufacture of a patented door check.

G. Lange, care Muskogee Artificial Limb Co., Memorial Station, Muskogee, Okla.—Wants prices and data on silk and muslin, stuck together, cardinal color, to be used in manufacturing artificial flowers.

Big Chief Refining Co., Godchaux Bldg., New Orleans, La., and 104 W. Seventieth St., New York, will construct refinery and wants prices on fencing property.

D. W. Stewart, Bennettsville, S. C.—Wants prices and data on sheet metal, pyrolox composition trays, ½x3x5 in.; ½x6x9 in.; ½x9x12 in., drawn, molded or pressed with square corners, neat finish, lots of 100 to 1000 each size.

Building Material and Equipment.

W. W. Desemar, Contr., 2714 Holly Grove St., New Orleans, La., wants prices on following for \$51,000 dwelling:

Cast Stone

Dumb Waiters

Flooring—hardwood, linoleum, tile, composition

Marble

Roofing (hip)—tile

Wire Glass

Brass and Bronze Work.

A. H. Krause, Frederick, Okla. — Wants prices on following:

Brass and Bronze Work

Metal Doors

Rolling Partitions

Built-up Roof

Steel Sash and Trim

Vaults

Wire Glass.

W. T. Caswell, Littlefield Bldg., Austin, Tex., wants prices on following for auto laundry:

Metal Ceilings

Metal Doors

Sprinklers

Steel Sash and Trim

Ventilators.

H. F. Kuehne, Archt., Littlefield Bldg., Austin, Tex., wants prices on following for \$8500 dwelling, Pflugerville, Tex.:

Flooring—tile
Limestone
Plaster Board
Roofing—asbestos shingle
Tile—interior.

H. F. Kuehne, Archt., Littlefield Bldg., Austin, Tex., wants prices on following for \$20,000 dwelling:

Flooring—hardwood, tile
Limestone
Marble
Roofing—asbestos shingle.

C. C. Whitaker, Conslt. Engr., Bona Allen Bldg., Atlanta, Ga., wants prices on following in connection with remodeling 2-story building for Hopkins, Campbell & Allen:

Flooring—hardwood
Metal Ceilings
Roofing (flat)—built-up
Steel Sash and Trim
Wire Glass.

The Butler Co., Herskowitz Bldg., Oklahoma City, Okla., wants prices on following for \$50,000 store and office for Ira J. Banta, Wewoka, Okla.:

Cast Stone
Roofing—built-up
Tile—hollow
Ventilators.

Mrs. Dorothy B. Alexander, Forsyth, Ga., wants prices on following for residence:

Flooring—hardwood
Roofing (Hip)—asbestos shingle, asphalt shingle.

C. G. Curtis, Archt., Post-Dispatch Bldg., Houston, Tex., wants prices on following for \$20,000 city hall, Alvin, Tex.:

Cast Stone
Flooring—hardwood
Roofing—built-up
Tile—hollow
Vaults.

A. E. Gredig, Archt., Mercantile Bldg., Knoxville, Tenn., wants prices on following for \$18,000 dwelling:

Electric Refrigerators
Flooring—hardwood, tile
Roofing—slate.

Big Chief Refining Co., Godchaux Bldg., New Orleans, La., and 104 W. Seventieth St., New York, will erect refinery and wants prices on following:

Foundations
Piling
Structural Steel
Wharves
Brick Work.

W. W. Sablin, 5816 Enright St., St. Louis, Mo., wants prices on following for 4-family tenement for Nash Construction Co.:

Flooring—hardwood, tile
Incline-ator
Limestone
Marble
Roofing—built-up.

Hutchisson, Holmes & Hutchisson, Archts., Staples-Powell Bldg., Mobile, Ala., want prices on following for \$25,000 remodeling for bank:

Flooring—tile, composition
Metal Ceilings
Metal Doors
Roofing (Flat)—built-up
Steel Sash and Trim
Vaults
Ventilators.

Warren, Knight & Davis, Archts., Protective Life Bldg., Birmingham, Ala., want prices on following for 2-story office bldg.:

Cast Stone
Flooring—linoleum
Metal Doors
Roofing (Hip)—built-up
Tile—hollow
Vaults.

Bids Asked

Bridge.—Crockett, Tex. See Construction News—Bridges, Culverts, Viaducts.

Bridges.—State of Louisiana—Bids for 2 bridges. See Construction News—Bridges, Culverts, Viaducts.

Bridges.—State of Texas—Bids for 3 bridges. See Construction News—Roads, Streets, Paving.

Bridges.—Hattiesburg, Miss.—Bids for 2 bridges. See Construction News—Bridges, Culverts, Viaducts.

Bridges.—Dallas, Tex.—Bids for 2 bridges. See Construction News—Bridges, Culverts, Viaducts.

Drainage.—Office of Bd. of Drainage Comms., Forsyth County Drainage Dist. No. 3, Winston-Salem, N. C.—Bids Jan. 22 for 11.2 mi. of dredge ditches, containing approx. 606,034 cu. yd.; 1.8 mi. of lateral ditches, containing approx. 33,533 cu. yd.

Dredging.—U. S. Engr. Office, Norfolk, Va.—Bids Jan. 24 for dredging approx. 3,574,121 cu. yd. of material, scow measurement or 2,859,297 cu. yd., place measurement, for channel across Rocklanding Shoal in James River, Va.

Fencing.—Constructing Q. M., 1012 Tempo Bldg., No. 51, 21st and B Sts., N. W., Washington, D. C.—Bids Jan. 29 for fencing at Kill Devil Hill, Kitty Hawk, N. C.

Filters.—See Water Works.

Lumber.—U. S. Engr. Office, St. Louis, Mo.—Bids Jan. 25 for 200,000 ft. mattress lumber, delivered f. o. b. U. S. barges.

Miscellaneous.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids Jan. 22 for scraper and Jan. 29 for lathe, metal planer, breast drills, etc.

Miscellaneous.—Panama Canal, A. L. Flint, Gen. Pur. Officer, Washington, D. C.—Bids Jan. 24 for steel rack castings, copper and bronze bars, sheet lead, lead sleeving, horns, carburetors, bond paper, carboric acid, etc. Sch. 1932.

Miscellaneous Supplies.—A. L. Flint, Gen. Pur. Officer, Panama Canal, Washington, D. C.—Bids Feb. 1 for following, Sch. 1933: Steel, iron, copper, metal, zinc, wire, rope, cable, storage batteries, telephone boxes, vulcanized rubber sheets tires, tubes, etc.

Paints and Brushes.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids Jan. 22 for furnishing paints and brushes, delivery Quantico, Va.

Paving.—Baltimore, Md. See Construction News—Roads, Streets, Paving.

Paving.—Miami, Fla. See Construction News—Roads, Streets, Paving.

Pipe (Reinforced Concrete).—See Sewers.

Pump.—See Water Works.

Pump.—U. S. Engr. Office, Galveston, Tex.—Bids Jan. 22 for horizontal duplex piston pump.

Road.—Aberdeen Proving Ground, Md. See Construction News—Roads, Streets, Paving.

Road.—Alexandria, La. See Construction News—Roads, Streets, Paving.

Road.—Corsicana, Tex. See Construction News—Roads, Streets, Paving.

Road.—Cuero, Tex. See Construction News—Roads, Streets, Paving.

Road.—Kerrville, Tex. See Construction News—Roads, Streets, Paving.

Road.—Covington, Va. See Construction News—Roads, Streets, Paving.

Roads.—State of Texas—Bids for 10 roads. See Construction News—Roads, Streets, Paving.

Roads.—Orlando, Fla.—Bids for 19 roads. See Construction News—Roads, Streets, Paving.

Roads.—State of Texas—Bids for 3 roads. See Construction News—Roads, Streets, Paving.

Roads.—State of Texas—Bids for 5 roads. See Construction News—Roads, Streets, Paving.

School Equipment.—State Building Comsn., W. C. Trotter, Sec., New State Capitol, Jackson, Miss.—Bids Jan. 23 for equipment for manual training school and lockers at Mississippi Industrial and Training School, Columbia, Miss.

Sewers.—Bd. of Awards, Baltimore, Md.—Bids Jan. 23 for sanitary sewers and storm drains in Dist. H-5-6 and 13. Storm Water Contr. No. 14; work includes rectangular brick and conc. drain rein. conc. pipe, vit. pipe, manholes, etc.; Milton J. Ruark, Sewerage Engr.

Sodium Nitrate Dynamite.—Panama Canal, A. L. Flint, Gen. Pur. Officer, Washington, D. C.—Bids Jan. 22 for sodium nitrate dynamite. Sch. 1934.

Tank and Tower.—See Water Works.

Topping Gravel.—H. L. Washburn, Harris County Auditor, Houston, Tex.—Bids Jan. 29 for 5000 tons topping gravel; A. J. Wise, County Engr.

Underpass Approaches.—Canyon, Tex. See Construction News—Bridges, Culverts, Viaducts.

Valve Refacing Machine.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids Jan. 21 for furnishing valve refacing machine, delivery to Quantico, Va.

Water Filtration Plant.—City of Tulsa, Okla., Frank P. Kitchen, Jr., City Auditor, Municipal Bldg.—Bids Jan. 29 for furnishing labor, materials and constructing water filtration plant and equipment; Black & Veatch, Mutual Bldg., Kansas City, Mo., and Victor H. Cochrane, Conslt. Engrs.

Water Works.—City of Granger, Tex., S.

D. Davis, Mayor—Bids Jan. 22 for installing water mains, valves, filters, pump, elevated steel tank, etc., together with connecting certain pipe now in place, changing and replacing fire hydrants; Fred E. Hess & Co., Engrs., Allen Bldg., Dallas.

Trade Literature

Tractor Tools.—Tools are being built for tractors, and tractor manufacturers are taking pains to sell tractors to fit certain sizes of different tools, according to the Caterpillar Tractor Company, San Leandro, Cal., and Peoria, Ill., which has issued a booklet on the subject. Belt speeds, pulley sizes, acres covered per hour at various tractor speeds and implement widths, sizes of machines recommended by implement manufacturers for use with Model Ten "Caterpillar," and the names and addresses of manufacturers making each implement are contained in this sales book.

Motors, etc.—Reductions in prices on both new and "Rockford rebuilt" motors, generators, etc., ranging from 10 to 25 per cent, are announced in bulletin No. 35 of the Rockford Power Machinery Company, Rockford, Ill. This reduction, the company adds, does not affect the previous standards of "Rockford rebuilt" and each machine is covered by a one-year guarantee against electrical or mechanical defects. The bulletin gives descriptions and illustrations, specifications and prices among other details.

Buckets.—Ball bearing equipped sheaves are featured in a description of Dreadnaught buckets in a booklet issued by the Blaw-Knox Company, Pittsburgh, Pa. A feature of the booklet is a chart for reference in conjunction with the text pages, the chart showing types and weights of buckets to meet given requirements, overall dimensions, capacities of bucket scoops, pick-up capacities in various materials, size of cable commonly used and other details.

Air Heaters.—A compact pamphlet issued by the Shaw-Perkins Manufacturing Company, Pittsburgh, Pa., describes oval tube air heaters produced by that concern for preheating combustion air, industrial heating, drying and other purposes. The oval tube heating surface and sectional design are said by the company to establish new standards of profit and convenience in the recovery of waste heat from boiler stack gases.

Construction.—Additions and modifications that have been found of advantage to users of Carnegie beam sections are described in a booklet, "Carnegie Beam Sections," issued by the Carnegie Steel Company, subsidiary of the United States Steel Corporation, Pittsburgh, Pa. Additional weights and other dimension expansions are given, with tables, specifications and diagrams.

Fred I. Brown, President.

Announcement is made of the election of Fred I. Brown as president of the Little Rock, Ark., Chamber of Commerce, succeeding W. C. Ribenack, who will remain a member of the executive board. Mr. Brown also is president of the Arkansas Foundry Company, Little Rock.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers, whether they are advertisers, or subscribers, or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Kingsport Cement Plant Wins Trophy.

The Pennsylvania-Dixie Cement Corporation plant at Kingsport, Tenn., has been awarded the Portland Cement Association Safety Trophy for operation throughout the calendar year 1928 without a lost-time accident to any employee. Actually, the plant at the close of 1928 had gone 486 consecutive days without a lost-time accident. The Portland Point, N. Y., mill of the corporation operated without such accident throughout 1928 until the last few days of December, thereby missing the award of one of the Association trophies. President Blaine S. Smith states that the 1928 accident record of the other Penn-Dixie plants has been excellent and the spirit within the organization such that he looks forward to an even better showing in 1929. The corporation also operates five cement producing mills in Pennsylvania, Tennessee and Georgia, with a total annual capacity of 11,000,000 barrels for all mills.

Machinery and Equipment Sale.

Of interest to industrialists and others is announcement of an auction sale of machinery and equipment of Wolfenden Shore & Co., manufacturers of woolen piece goods, at Carlington, Pa., near Spruce and Sixty-third streets, Philadelphia, on January 30, at 10 A. M., on the premises. Among the items enumerated are 72 automatic looms, arranged for motor drive; 72 plain looms, 18 extra heavy pattern high speed mules, 14 sets of 48 by 60 wool cards, Proctor stock dryers, Permutit water softener system, electric motors, generators, leather belting, power elevators, steam engine, shafting, office furniture and equipment and so on, as advertised in the MANUFACTURERS RECORD. Information is obtainable from Samuel T. Freeman & Co., auctioneers, 1808 Chestnut street, Philadelphia, and 80 Federal street, Boston, Mass. Frazier & Frazier, Philadelphia, are attorneys for Wolfenden Shore & Co.

United States Feldspar Mill.

Adjacent to a large potash felspar deposit at Cranberry Creek, N. Y., the United States Feldspar Corporation has completed a new mill on a tract of about 3500 acres, with output suitable for service in different branches of the ceramic industry. The main quarry properties are approximately two miles from the mill site and connected with the mill by an aerial tramway. A motor-driven air compressor drill sharpener and auxiliary equipment have been installed at the quarry. The new mill has a rated capacity of five tons an hour in one unit and arrangements have been made for another similar unit.

Labor Attack on Industry.

Of several articles in the December issue of "American Industries," official publication of the National Association of Manufacturers, the first is "The A. F. of L. Attack on the N. A. M." by John E. Edgerton, president of the National Association of Manufacturers. The American protective tariff is discussed, and the appointment of a sub-committee is announced, to follow tariff legislation.

Calendar Extols Georgia.

While the 1929 calendar of the Georgia Power Company is published for its employees "in the hope that a daily reminder of some of the memorable facts about the State and its historic figures may help them in their desire to be better citizens of Georgia," it is of interest also to persons outside the company. Each day in the year carries some message or note about Georgia. Taken at random, that for April 3 says: "Few States offer the year 'round climate for either industry or agriculture comparable with Georgia; the growing season in north Georgia is 210 days, in central Georgia 230 days and in south Georgia 260 days." Messages from President P. S. Arkwright add to the value.

Alpine, Tex., Enterprise.

Anyone knowing of a town the size of Alpine, Texas, that has "a better record," is asked by Mrs. W. B. Hamilton, secretary of the Brewster County Chamber of Commerce, Alpine, please to let them know, so that congratulations may be forwarded. Alpine's city expansion program for 1928 far exceeded the \$1,000,000 mark, a \$130,000 sewer and waterworks system, which was installed, being considered sufficient for years to come, and a \$90,000 bond issue for schools having been approved, among many other features. The building program "has far exceeded the most sanguine expectations," says President J. E. Wright in his report.

Volunteer Cement Operations.

Besides calling attention to the fact that Volunteer portland cement is "a Southern product, owned by Southern capital and keeping all its money in the South," J. Ross Hanahan, president of the Volunteer Portland Cement Company, Knoxville, Tenn., in a letter to the stockholders says that the company made substantial headway in the first six months of its plant operation and on the sales side. "We are making a cement that shows considerably better quality than is required under the present specifications," Mr. Hanahan adds.

Sales Organization Contract.

The Union Metal Manufacturing Company, Canton, Ohio, has entered into an agreement with the King Company, manufacturer of cast iron street lighting products with manufacturing plant and general offices at Sheffield, Ala., to sell all of its products, and the General Electric Merchandise Distributors' Association and Graybar Electric Company, Inc., will act as agencies for the Union Metal Manufacturing Company in selling both steel and iron lighting standards. The King general and sales offices will be located at Canton.

John Candee Dean.

Announcement is made of the death of John Candee Dean of the Dean Brothers Company and president of the Dean Pump Works, Indianapolis, Ind. For some time Mr. Dean had abated his business activities, but remained a factor in business circles in Indianapolis and elsewhere.

Pittsburgh-Des Moines Personnel.

The Pittsburgh-Des Moines Steel Company, Pittsburgh, Pa., fabricator of elevated steel water tanks, oil tanks, plate work and also active in the construction of waterworks, highway bridges and municipal incineration, announces that J. E. O'Leary has been promoted to general sales manager at the home office in Pittsburgh. H. W. Ford succeeds Mr. O'Leary as manager of the New York office, G. A. Smith will direct the construction and erection activities of the company, and W. E. R. Moore has been engaged as export manager in the New York office, 50 Church street.

Shepard-Niles Corporation.

To provide a single source of supply for all sizes of traveling cranes and electric hoists, the Shepard Electric Crane & Hoist Company, including its Sprague division, and the Niles Crane Corporation have combined under the corporate title, Shepard-Niles Crane & Hoist Corporation. The Shepard plant at Montour Falls, N. Y., and the Niles plant at Philadelphia, Pa., will be continued in operation, with the main office at Montour Falls. The officers include: Colonel Edward A. Deeds, chairman of the board; S. G. H. Turner, chairman of the executive committee, and Frank A. Hatch, president.

Paint and Varnish Possibilities.

Domestic market possibilities for sales of paints and varnishes are discussed in a brochure under that title written by George H. Priest, Jr., and distributed by the Department of Commerce at five cents a copy. "The opportunity which greets the paint and varnish manufacturer for increasing his sales in the United States is a challenge to his ability to meet the situation by developing the great potential market which exists," says an opening sentence. Marketing problems, including "desire to paint," production, distribution, education of the consumer and of the dealer, and so on, are discussed, together with a market analysis, with potential consumption by States and statistical tables of interest.

The Telephone Typewriter.

To bridge ever widening distances and establish close contacts now necessary, the telephone typewriter, which typewrites by wire, has been devised. The Bell System announces that it now provides telephone typewriter service for commercial and industrial organizations of all kinds in the United States, with approximately 80,000 miles of wire used in furnishing this service.

Moves General Offices.

The Southern Iron and Equipment Company, Atlanta, Ga., rebuilder of locomotives, cars, shovels, etc., has moved its general offices from the Grant Building to its works at Hemphill avenue and Southern Railway, Atlanta.

"Use Better Papers."

An attractive calendar has been received from Henry A. Lengnick, paper merchant, Baltimore. "Use better papers—the best are made from rags," says a legend on the calendar.

Thornton Brick Greetings.

"Pals of the Wind and Sky" is the name of the 1929 calendar which the Thornton Fire Brick Company, Clarksburg, W. Va., hopes will appeal to its friends.

Sales Companies Incorporated.

The Milburn Sales Corporation and the Milburn Paint Spray Corporation have been incorporated in Maryland to carry on the sale of a number of the products of the Alexander Milburn Company, Baltimore, welding and cutting apparatus, gas regulators, gas generators, portable lights, paint spray guns and guns for greasing purposes and other specialties. The Milburn Sales Corporation takes over the selling of all such Milburn Company

equipment, except the paint spray equipment and air guns for greasing, the sale of these being exclusively taken over by Milburn Paint Spray Corporation. The officers of both the Sales Corporation and the Paint Spray Corporation include Alexander F. Jenkins as president and treasurer and Edward P. Boyer as vice-president. The Alexander Milburn Company has paid its fifty-sixth quarterly dividend of 1% per cent on preferred stock and the regular quarterly dividend of 2 per cent on common.

Blackwood Succeeds Copeland.

The directors of the Sullivan Machinery Company, Chicago, Ill., have elected Arthur E. Blackwood president of the company, succeeding the late Frederick K. Copeland. Mr. Blackwood has been with the Sullivan Machinery Company for 32 years, having joined it shortly after graduating from Toronto University as a mechanical and electrical engineer, and later working his way to the very top.

Mortgage Finance to Be Discussed.

The field of mortgage finance is being searched by the Mortgage and Finance Division of the National Association of Real Estate Boards with a view to bringing the findings before the annual business meeting of the Boards, at Birmingham, January 23-25. The division is asking members of its recently formed executive council to report subjects which are of greatest importance in the mortgage loan field in each city. They will serve as advisors to the Association in formulating proposed legislation.

Executive Councillors who have been appointed in the South to date and upon whose reports the work to be included in the program of meetings of the division is based are:

H. P. Lyman, Fort Smith, Ark.; Oscar McCaskill, Little Rock, Ark.; Britton Browne, Washington, D. C.; Frank W. Crisp, Davenport, Fla.; Z. H. Sanders, Lakeland, Fla.; W. H. Milton, Marianna, Fla.; Hollis Bush, Miami, Fla.; H. W. Jordan, New Smyrna, Fla.; H. W. Barr, Orlando, Fla.; J. C. Watson, Pensacola, Fla.; Milton H. Mabry, Tampa, Fla.; W. C. Klingensmith, Titusville, Fla.; Ward Wight, Atlanta, Ga.; E. H. King, Ashland, Ky.; Joseph Holliday DuPuy, Baton Rouge, La.; Ed. C. Carrere, New Orleans; A. C. Steere, Shreveport; Robert G. Merrick, Baltimore, Md.; Hadley Tatum, Joplin, Mo.; Herbert V. Jones, Kansas City; Robert B. Orr, St. Joseph; L. Wm. Gerling, Welston, Mo.; B. B. Vinson, Greensboro, N. C.; G. W. Clark, High Point, N. C.; J. J. Currin, Winston-Salem, N. C.; Robert L. Foust, Knoxville, Tenn.; Emmet E. Joyner, Memphis; George T. Finegan, Nashville; A. D. Dickinson, Jr., Brownsville, Texas; J. G. Clark, Fort Worth; Ira F. Reed, Houston; R. W. Patton, San Antonio; George E. Copley, Sherman, Texas; W. B. Bayliss, Richmond, Va.; W. F. Peters, Charleston, W. Va.; H. H. Harvey, Huntington, W. Va.; John F. Ferrell, Wheeling, W. Va.

\$300,000 Mobile Bonds Bring \$12,540 Premium.

The Board of City Commissioners, Mobile, Ala., sold \$300,000 five per cent waterworks improvement bonds to Stranahan, Harris & Oatis, Inc., of Toledo, Ohio, at a premium of \$12,540. Contracts for a portion of the improvements proposed to be financed by the issue have already been awarded subject to the issuance and sale of the bonds, one of the most important projects covering the installation of a 24-inch parallel main from Bienville pumping station to the Bienville reservoir.

\$500,000 Expenditure by Atlanta Trust Company.

Atlanta, Ga.—Plans have been announced by A. J. Orme, president of the Atlanta Trust Co., for the erection of a three-story store building on Marietta street and a 14-story office structure extending back to Walton street, the latter to correspond in height and general architecture to the present building of the Atlanta Trust Co. at Broad and Marietta streets. Frazier & Bodine, Atlanta, are the architects.

To Open New Texas Airport.

San Angelo, Tex., January 12—[Special.]—When the West Texas Oil Exposition convenes in San Angelo, January 24 and 25, an elaborate entertainment will be presented, featuring the dedication of San Angelo's airport, a 254-acre landing field, equipped with hangars, administration building, gasoline pumps, water and telephone service. Air races, stunt

flying, night landings with the guidance of giant flares, and spot landings will be offered by the most experienced pilots of Texas, Oklahoma, Kansas and Arizona. Cash prizes of \$1710 are offered. Nearly 100 planes are expected from manufacturers, oil companies and private interests. William Fuller, manager of the Fort Worth airport, has been engaged to superintend the opening here.

\$1,500,000 Additions for Celotex Plant.

New Orleans, La.—Plans have been announced by B. G. Dahlberg, president of the Celotex Co., Chicago, for the construction of another unit to the company's New Orleans celotex plant to cost about \$500,000, and for the construction of a new \$1,000,000 power plant. Construction is expected to start at once and to be completed within six months. The new unit will increase the capacity of the celotex plant to 1,500,000 square feet daily.

\$250,000 Home for Beaumont Capitalist.

Beaumont, Tex.—Contract for the design and construction of a \$250,000 residence here for T. F. Rothwell has been awarded to the Russell Brown Co., Houston. Interior decorating will be handled by the same firm in co-operation with Robert D. Harrell. The building will be three stories, of Colonial architecture, buff colored brick and Indiana limestone.

Lumber Shipment in Record Time.

New Orleans, January 12.—The ability of the Long Leaf Yellow Pine Manufacturers Association to deliver large amounts of lumber in record time was recently demonstrated when a contract was consummated with the Mt. Vernon Car Manufacturing Company, Mt. Vernon, Ill., for the shipment of over 1,000,000 feet of long leaf within the next 60 days. W. H. Vesel, general purchasing agent for the Mt. Vernon company, detailed his requirements for decking, framing, longitudinal siding and running boards; prices and delivery were agreed on and the order was placed with the Long Leaf Association for distribution among member mills and others in position to handle the business within the period allowed for delivery.

Brick and Tile Companies Consolidate.

Dallas, Tex.—Chartered as a manufacturing and sales organization, the Reliance Clay Products Company consolidates the Mineral Wells Brick Co., Mineral Wells, Tex.; Reliance Brick Co., Dallas, Tex.; Tyler Brick Co., Tyler, Tex., and the Midwest Brick Co., Wagoner, Okla. General offices of the new organization will be maintained at Dallas and branch offices throughout the Southwest. Its officers include A. E. Eaton, Mineral Wells, president; Ray E. Cope, Dallas, vice-president and sales manager, and Van Johnson, Ferris, Tex., secretary and treasurer. Plants in the combination manufacture all kinds and color of face brick, hollow tile and crushed brick for roofing purposes, as well as paving brick. They have a combined capacity of 50,000,000 brick and 50,000 tons of hollow tile annually.

North Carolina's 2140 Sawmills Produce 1,342,000,000 Board Feet of Lumber Annually.

North Carolina has an estimated total stand of available saw timber amounting to approximately 13,570,000,000 board feet, according to the Division of Forestry of the Department of Conservation and Development, Raleigh. A special study of resources was made last year. Following is the estimate for the various sections: Mountain, 5,178,000,000 board feet; Piedmont, 2,402,000,000; western coastal, 2,680,000,000; eastern coastal, 3,130,000,000.

Total forest area is estimated at 21,200,821 acres of a grand total of 31,193,600 acres. Approximately 50 per cent of the forest lands are in the coastal plains section; the largest proportion to total area is also in this section which has 74 per cent of its territory classified as forest land. The eastern section is divided into two parts, the eastern and western coastal and separate figures given for each.

Second in proportion of total area classed as forest lands is the western or mountain section with 69 per cent; or 4,437,391 acres out of 6,464,640. The Piedmont has 10,647,680 acres, of which 58 per cent is termed forest area; or 6,359,055 acres.

Estimated annual production of lumber amounts to 1,342,000,000 board feet, with 2140 sawmills in operation in the state.

Returns to timberland owners from the annual cut of stumpage is \$7,270,000, exclusive of timber cut for fuel use only. According to the U. S. Bureau of the Census, North Carolina uses as much wood for fuel as any other state. Large quantities are consumed in the curing of tobacco. In arriving at the total stumpage value of timber cut, cordwood for fuel was not included. The total stand is based on the amount of saw timber available counting such material as is now being cut by the average mill. There is of course much timber suitable for pulpwood which is not yet of timber size, states the survey.

Builders in the Glass Industry.

In personal reminiscences of the Libbey-Owens Sheet Glass Company, William S. Walbridge, vice-president of the Toledo Glass Company, gives in "The Engineer" for December contrasting pictures of the careers of John Libbey and Michael J. Owens, who co-operated in the development and manufacture of glass. Owens, born in Virginia, was a son of immigrants from Ireland and his father was a coal miner. At the age of 10, the boy got a job in a glass factory in West Virginia and there worked until 1888, when, at the age of 29, he joined forces with Libbey, who had enjoyed good surroundings and an excellent education before going into business. The story is of great human interest. "The Engineer" is published by Lockwood Greene Engineers, Inc., New York, Boston, Chicago, Charlotte, N. C., and Spartanburg, S. C.

The Savannah Piedmont's Prospects.

Editor Manufacturers Record:

Through the eye of expectation and confidence, I am moved to speak of this most wonderful section of the United States—the land of golden opportunity and promise. Not very many years ago, it was a withering sight of desolation and poverty. The lands were unkept and the people and their homes were poor. Now the wheels of a thousand factories and more are turning night and day; the old houses are gone, and towns and villages have arisen almost overnight.

The Savannah Piedmont is a region of the district not yet as finely groomed and thickly settled as what we commonly call the Piedmont Carolinas. The Savannah Piedmont is an associational district in course of formation, in purpose to capitalize and industrialize its region of content. It is, in fact, the lower Piedmont. From all indications, great

things will soon be under way, having Calhoun Falls, S. C., as the central point of operations.

The entire region is surrounded by waterpower of great proportion, as yet not harnessed. No doubt, we soon shall see a wonderful program of expansion under way here, and a model city will rise in the expansion and development of the Southeastern territory of the United States.

H. A. FARNBROUGH.
Elberton, Ga., January 2.

\$1,000,000 Clinic Building for New Orleans.

President A. B. Dinwiddie of Tulane University, New Orleans, advises that the University is to erect a clinic building near the Charity Hospital, at a cost of \$1,000,000. Favrot & Livaudais, Ltd., New Orleans, are the architects for the structure.

\$1,250,000 Revenue Notes Offered by Memphis.

Bids will be opened January 22 by D. C. Miller, city clerk, of Memphis, Tenn., for the purchase of \$1,250,000 revenue notes of the City of Memphis. These notes are a part of an issue of \$2,250,000 authorized and will bear an interest rate of 4½ to 5½, as fixed on the day of sale.

\$3,955,000 Baltimore City Stock Sold.

Baltimore City stock in the amount of \$3,955,000 has been sold to Hambleton & Co., Baltimore; Old Colony Corporation, Boston, and Estabrook & Co., New York, at 99.20. This stock, issued for harbor development purposes, bears an interest rate of 4 per cent.

Government Pecan Experiment Station.

A new pecan experiment station soon to be established near Shreveport by the Department of Agriculture is expected to become the leading center of pecan information in the South. Work will include testing out different species and varieties of soil-improving crops, and conducting investigations pertaining to fertilizers and methods of cultivation, and inter-crops which may profitably be grown between the trees.

Appointed Industrial Commissioner.

The Industrial Committee of Savannah, sponsored by the city's business organizations and leading business men, has appointed George M. Rommel Industrial Commissioner. Since assuming his duties last month, Mr. Rommel reports rapid progress has been made in assembling and co-ordinating facts in regard to resources and advantages for the establishment of industries in the Savannah territory. He was formerly with the United States Department of Agriculture, and recently published a book about "Farm Products in Industry," based on a survey made for Secretary of Agriculture Jardine, which has attracted wide attention.

New Orleans Public Grain Elevator Eliminates Weighing Charges.

All weighing of grain passing through the New Orleans public grain elevator, heretofore performed by employees of the Board of Trade grain department, will be performed directly by the operating force of the elevator, and charges heretofore assessed ranging from \$1.10 to \$1.50 per car for those services are eliminated, according to announcement of the Board of Commissioners of the Port of New Orleans. The action is similar to that taken by the board earlier in the year at the Public Cotton Warehouse where tariff reductions were made by assuming the performance of services which had been performed by the New Orleans Cotton Exchange.

Some Objections to the Misuse of Billboard Advertising.

American Civic Association.

Harrisburg, Penna., January 2.

Editor Manufacturers Record:

As one who has for more than 20 years been combatting the excesses of outdoor advertising, I appreciate fully the admirable article, "The Billboard Blight," by Samuel McGowan, printed in your issue of December 27. Mr. McGowan has brought to our attention the breadth and depth of the resentment felt by those who see the vast expenditures of the nation for roads most improperly diverted to private interest through the intrusions on the roadsides of these selfish advertising signs.

Not only from the standpoint of preservation of some of our countryside from these intrusions, but because obviously these signs do increase the already serious danger to the public using the roads, their restraint is surely essential. The growing resentment against these signs cannot be dismissed with contempt by those who cover their resentment under the word "aesthetic," because it is obviously impossible for anyone to pay attention to these signs and also to weave his way through our crowded highways, avoiding with success alike the others who are legitimately using the highways and at the same time taking notice of the direction signs being increasingly supplied to tell him where to go, what to do, and how to avoid danger.

There was offered in the 1925 Legislature of the State of Pennsylvania what was known as the "Buckman Bill," which would require the assent of the Secretary of Highways to the erection of any sign visible from any highway maintained in whole or in part by the State, and with directions to that official to license only such as in his judgment did not interfere with the public safety. The principle here involved was said by eminent legal authorities to be sound. Of course, the bill never had a chance, because the billboard organizations have shrewd and able counsel who see to it that such legislation is smothered in committee. Theirs is continuing, competent, private interest, whereas those of us who protest are only of the public who must take unselfishly of our time, energy and money if we are thus to combat selfish commercialism.

I am not of those who desire to see all outdoor advertising removed, and I have made this position plain to the billboard authorities more than once. They can have a proper place in the public eye if they will take the public into their consultation as to what that place is. A segregation of billboards and intensification of their attractive quality, combined with a radical reduction in size, might bring about such a situation as to make a billboard section of a highway, properly set aside where danger could not occur and where there was ample room to stop, or at least to check speed, in order to see these announcements.

There are national organizations handling outdoor advertising. One very large New York organization controls many billboards. These gentlemen have recognized the public interest by establishing a "Committee on Public Relations," but meetings with that committee are usually of a camouflage nature, or intended to convince each other among the advertisers of the rectitude of their position and its security.

If these organizations can take warning from the rapidly mounting resentment of a public which is awakening to the concealed beauty of America which these announcements obscure, they can continue. If not, they can face eventual complete exclusion.

Meanwhile, it is obvious that someone pays for this advertising. Not seldom the one who does pay has been overpersuaded through high-powered salesmanship. If those who dislike the signs constantly make obvious that dislike by writing to the advertiser, a powerful deterrent will be initiated. The tremendous radio business now prevailing constantly urges those who hear to write to the stations their feelings with respect to what has been heard. Perhaps the same practice could properly be initiated with respect to

billboards, and those who like or do not like the highways lined with private advertising signs might very well inform the advertiser of their feelings about the situation.

J. HORACE MCFARLAND,

Chairman, Committee on Roadside Improvement.

Hotel Building in Florida.

Official reports from Tallahassee show that during 1928 permits were issued for the construction in Florida of hotels and restaurants to the extent of nearly \$4,500,000. The permits for the hotels were valued at \$3,280,000 and numbered 213, while those for restaurants figured up 199 with a valuation of over \$1,000,000.

\$700,000 Hotel to Be Erected in Lubbock.

A press dispatch from Lubbock, Tex., announces that the Hilton Hotel Co., Dallas, will soon begin the erection of a \$700,000 hotel at Lubbock, for which a site, 125 by 115 feet has been secured. The building will be 12 stories and will contain about 200 rooms. This will be the seventh hotel in the Hilton chain in Texas and will bring the total room capacity to 1400, it is said.

Bags Other Than Paper in 1927.

The Department of Commerce announces that establishments engaged primarily in the manufacture of bags from materials other than paper in 1927 reported products valued at \$162,949,837, a decrease of 6.9 per cent from the previous census year, 1925. The value of such bags manufactured to some extent in textile mills and by establishments engaged primarily in other manufactures has not yet been ascertained. Of 181 establishments engaged primarily in the industry, 12 were in Missouri, nine in Texas, nine in Virginia, six in Louisiana, six in Maryland, six in Tennessee and the remaining 41 in 19 other States. There were 11,164 wage earners; wages, \$9,548,317; fuel and power, \$406,436; horsepower, 15,754.

Dairying Development in Texas.

By J. NEWELL JOHNSTON, Editor, The Sherman Democrat.

From all indications, Texas is to make 1929 memorable in the development of a dairy industry. Only one year ago, the first big milk plant in Texas began operation in Sherman, followed by the opening of a Kraft cheese plant at Wichita Falls and a powdered milk plant at Marshall. In the closing weeks of 1928, the Borden Company of New York announced the location of a \$500,000 condensery at Waco and may announce another location soon. The Carnation Company is understood to be seeking a Texas location, and the Pet interests are expected, also.

The question now is whether there is sufficient cow population to support milk plants and whether the plants, if established, would have adequate marketing facilities. The Sherman and Marshall plants have established cooling stations in towns in the nearby territory as concentration points and this practice has widened the market for milk and is being generally considered. Tyler has raised \$100,000 to co-operate with the Douthitt Engineering Company in a proposition like that at Marshall, and Corpus Christi has announced that a big condensery will be opened there.

Some advance has been noted in the price of the scrub cow, but chambers of commerce are bending their efforts to the organization of bull circles, the idea being to provide the farmers with high producing animals and secure an increase in the supply for condenseries, rather than adding to the cow population by purchase. This movement is spreading in the State, and the American Jersey Cattle Club is co-operating. Freight is saved by making purchases from Texas herds, which are believed to equal in quality any in the country.

deLavaud is 25% stronger than any other CAST IRON PIPE and ... here's the reason why

IT has long been known by chemists and engineers that the finer and less angular the graphite particles of any cast iron, the stronger will be the metal itself.

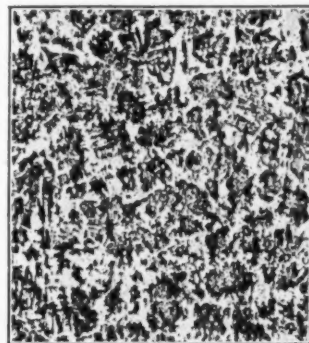
A direct comparison of the micrographs shown here will explain very clearly why deLavaud is mechanically superior to any other cast iron pipe.

The illustration at the left shows a cross-section of a piece of ordinary cast iron pipe magnified 100 times. Upon close examination we find that the continuity of the mass is broken up by extremely long flakes of coarse graphite.



Sand Cast Pipe. Micrograph showing center of wall cross-section. Magnification 100 times. Note the long flakes of brittle graphite.

Now observe the micrograph of the deLavaud Pipe shown at the right. Note the smallness of the graphite masses and the fine even texture of the metal. This density and the uniformity of grain structure give deLavaud pipe a tensile strength of more than 30,000 lbs. per square inch.



Cross-Section of deLavaud Pipe at center of wall. Magnification 100 times. Observe the even grain and the finely divided condition of the graphite.

Indeed, exhaustive laboratory and factory tests have proved that deLavaud Cast Iron Pipe is 25% stronger than pipe cast by any other method.

deLAVAUD CAST IRON PIPE centrifugally cast by

United States Cast Iron Pipe and Foundry Company

General Offices:
Burlington, New Jersey

Philadelphia: 1421 Chestnut St.
Chicago: 122 So. Michigan Blvd.
Birmingham: 1st Ave. & 20th St.
Buffalo: 957 East Ferry Street
Cleveland: 1150 East 26th Street
New York: 71 Broadway
San Francisco: 3rd & Market Sts.

Los Angeles: 403 So. Hill St.
Pittsburgh: 6th & Smithfield Sts.
Dallas: Akard & Commerce Sts.
Kansas City: 13th & Locust Sts.
Seattle: 1st & Marion Sts.
Minneapolis: 6th Street & Hennepin Avenue

FINANCIAL NEWS

Bond Issues Proposed

Ala., Birmingham—City, C. E. Armstrong, Comptroller, plans receiving bids within 90 days for \$1,000,000 school bonds; receiving bids in Mar. for \$1,000,000 underpass bonds.

Ala., Brighton, Bessemer—Indebtedness—Town, J. K. Edwards, Mayor, receives bids Feb. 6 for \$13,000 bonds. 1-3

Ala., Tarrant, Birmingham—City, Wallace Wells, Clk., plans \$100,000 bond issue for additional paving and sewerage.

Ark., Little Rock—Improvement—City Bd. of Comms. receives bids Jan. 22 for \$30,000 bonds.

Ark., Pine Bluff—Comms. of Tucker Lake Levee and Drainage Dist., Jefferson County, considering \$50,000 bond election; R. H. Williams, County Judge.

Fla., Gulfport—Refunding—Town, W. W. Swift, Clk., receives bids Jan. 22 for \$47,000 6% \$1,000 denom. bonds.

Fla., Orlando—Road—Orange County Comms., B. M. Robinson, Clk., receives bids Feb. 4 for \$1,310,000 5% bonds. Lately noted bids Jan. 28. 1-3

Fla., Pensacola—Indebtedness—City, Circuit Judge Thomas F. West, may issue \$151,000 bonds.

Fla., Pensacola—Road—Escambia County Comms. considering \$15,000 time warrants to surface uncompleted portion of Lillian road and to pay for work under construction.

Ky., Bowling Green—General Refunding—City, J. Q. Kirby, Clk., receives bids Jan. 21 for \$100,000 4½% \$500 denom. bonds.

La., Alexandria—Rapides Parish Police Jury, Clyde G. Durham, Sec., receives bids Feb. 13 for \$75,000 \$500 denom. not to exceed 6% Road Dist. No. 36 bonds.

La., Monroe—School—City, Arnold Bernstein, Mayor, plans voting in Feb. on \$600,000 bonds; E. L. Neville, Supt. of Education. 12-13

La., Opelousas—Road—St. Landry Parish Police Jury receives bids Feb. 4 for \$200,000, subroad dist. No. 6, of Wards 1, 5 and 6, 6% bonds.

Md., Cumberland—City, Mayor Loon, considering \$310,000 bond election in spring; \$85,000, sewers; \$80,000, incinerator; \$145,000, public safety building, for police and fire headquarters and Central Fire Station.

Md., Hagerstown—City, Reuben Muzey, Mayor, considering \$300,000 bond issue to extend and improve sewerage system and municipal disposal plant; votes in Mar. on bonds to complete Memorial Blvd.

Miss., Centreville—William Winans Institute Consolidated School Dist., voted \$40,000 bonds.

Miss., Clarksdale—City, R. E. Stratton, Jr., Clk., receives bids Feb. 4 for \$270,000 bonds; \$250,000, school; \$20,000, 5%, \$1,000 denom. library improvements. 1-3

Miss., Forest—Water—Town voted \$60,000 bonds. 11-29

Miss., Jackson—School—City plans voting in about 2 weeks on \$200,000 bonds. Address E. L. Bailey. 1-3

Miss., Greenwood—Municipal Natatorium—City votes Jan. 29 on \$50,000 bonds. 1-3

Mo., Clayton, St. Louis—Clayton School Dist., Mrs. Victor W. Kern, receives bids Jan. 21 for \$300,000 4¼ or 4½% \$1000 denom. bonds. 1-3

Mo., Independence—County Hospital—Jackson County Court, Judge Harry S. Truman, Presiding Officer, plans selling within next 4 weeks, \$500,000 bonds.

Mo., St. Charles—Sewer—City votes Feb. 5 on \$450,000 bonds; Burns & McDonnell, Engrs., 401 Interstate Bldg., Kansas City.

N. C., Charlotte—City Comms., Marlon Redd, Mayor, plan \$245,000 bond issue; \$190,000 municipal incinerator; \$55,000, sanitary sewers.

N. C., Charlotte—Bond Anticipation—Mecklenburg County, F. M. Gresham, County Accountant, will sell about Feb. 1, \$1,200,000 notes.

N. C., Columbia—Water, Light—Town, W. H. McClees, Clk., receives bids Jan. 21 for \$25,000 6% \$500 denom. bonds.

N. C., Greensboro—Bd. of Education of Greater Greensboro School Dist. E. D. Broadhurst, Chmn., receives bids Feb. 1 for \$1,300,000 \$100 denom. not to exceed 6% bonds.

N. C., Hendersonville—Water—City Comms. considering \$20,000 bond issue.

N. C., Hickory—Improvement—City, H. L. Yoder, Clk., advises \$400,000 4¼% bond not

sold; no par bids received. Lately noted bids Jan. 8. 1-3

N. C., Jackson—School—Northampton County Comms., S. J. Calvert, Clk., receive bids Jan. 28 for \$80,000, \$1000 denom. not to exceed 5% bonds.

N. C., Manteo—Street—Town, H. H. Twiford, Clk., receives bids Jan. 18 for \$7,000 6% \$500 denom. bonds.

N. C., Southport—Hospital—City, J. H. Russ, Clk., receives bids Jan. 21 for \$7500 5% \$500 denom. bonds.

N. C., Spruce Pine—Public Improvement—Town, A. W. Phillips, Clk., receives bids Feb. 5 for \$12,000, not to exceed 6% bonds.

N. C., Shelby—Bridge—Cleveland County Comms., A. F. Newton, Clk., plans \$20,000 bond issue.

N. C., Wilmington—Public Improvement—City Comms., W. H. Blair, Mayor, receive bids Jan. 23 for \$250,500 \$1,000 denom. bonds; bidders to name rate of interest. 1-3

Okl., Edmond—City voted \$45,000 bonds: \$27,000, water; \$18,000, sewer; plan selling bonds.

Tenn., Bruceton—Sewer, Water—City, Bd. of Mayor and Aldermen, considering \$86,000 bond issue.

Tenn., Elizabethton—Carter County Court authorized \$368,000 5% bond issue to take up time warrants.

Tenn., Selmer—School—McNairy County Court authorized \$100,000 bond issue.

Tex., Alpine—Alpine Independent School Dist. voted \$90,000 bonds. 1-3

Tex., Beaumont—School Bd. of French School Dist., C. H. Wooding, Pres., will call election on \$85,000 bonds.

Tex., Beaumont—Jefferson County considering \$6,000,000 bond election: \$2,000,000, courthouse; \$4,000,000, bridge across Neches River, highway, paving, intracoastal canal bridge, boulevard, other roads.

Tex., Canadian—City Hall, Municipal Auditorium—City voted \$35,000 bonds.

Tex., Corsicana—Road—Navarro County, Warren Hicks, County Judge, receives bids Jan. 28 for \$30,000 5% \$1,000 Rice Road Dist. No. 12 bonds.

Tex., El Paso—Concordia School Dist., El Paso County, voted \$40,000 bonds for school library and auditorium.

Tex., Galveston—City, Jack E. Pearce, Mayor, considering bond issue for filling east end flats, sewer and drainage improvements, street improvement and permanent paving in western section.

Tex., Jasper—Road—Jasper County, Road Dist. No. 2, votes Feb. 2 on \$150,000 bonds.

Tex., Lagrange—Paving—City voted \$50,000 bonds. 12-13

Tex., Laredo—School—City considering \$200,000 bond issue.

Tex., Liberty—Road, Bridge—Liberty County, C. R. Wilson, County Judge, plans \$2,250,000 bond election.

Tex., Lubbock—City Comn., W. H. Rodgers, Sec., receives bids Jan. 24 for \$190,000 5% bonds; \$125,000, street; \$25,000, sewer; \$40,000, water works.

Tex., Marlin—Paving—City votes Feb. 12 on \$200,000 bonds.

Tex., Paris—Sewer—City votes Feb. 15 on \$250,000 bonds.

Tex., San Antonio—Los Angeles Heights Independent School Dist. may vote on \$150,000 bonds.

Tex., San Benito—City, J. Scott Brown, Mayor, receives bids Jan. 23 for \$30,000 bonds; \$20,000, street; \$10,000, sewer. 1-10

Tex., Sanger—Paving—City plans issuing \$10,000 warrants.

Tex., Waelder—City votes Feb. 12 on \$31,000 not to exceed 6% bonds.

Tex., Wellington—Road—Collingsworth County defeated \$400,000 bond issue. 11-29

Va., Hillsville—Carroll County Bd. of Suprs. considering district bond issue.

Va., Luray—Page County School Bd. considering \$150,000 bond election.

Va., Winchester—City, L. B. Dettra, Mgr., votes Feb. 12 on \$500,000 bonds: \$125,000, refunding and indebtedness; \$125,000, sewer; \$150,000, street; \$100,000, school. 1-3

Bond Issues Sold

Ala., Mobile—Water—City Comms., S. H. Hendrix, City Clk., sold \$300,000 5% bonds to Stranahan, Harris & Oatis, Inc., Toledo, Ohio, \$12,540 premium. 12-13

Fla., Tallahassee—Road—Leon County sold \$90,000 5% bonds, jointly, to Caldwell & Co., Nashville, Tenn., and John Nuveen & Co., Chicago, Ill., 96.02. 12-6

Ga., Jefferson—J. H. Hillsman & Co., Inc., and Citizens and Southern Co., of Atlanta, both Atlanta, Ga., purchased, jointly, \$7,500 6% \$500 denom. Plain View School Dist., Jackson County bonds.

Ky., Mount Sterling—Refunding—Montgomery County Comms. sold \$20,000 5% \$1000 denom. bonds to Jas. C. Wilson & Co., Louisville, at \$20,615.

Ky., Russellville—Logan County Fiscal Court sold \$116,000 5% bonds to Assel, Goetz & Moerlein, Inc., Cincinnati, Ohio, \$1,375 premium, to pay outstanding warrants.

La., Calvin—Winn Parish School Bd., Winnfield, sold \$55,000 5½% Calvin Dist. School bonds to R. H. Oliver, Monroe, par, accrued interest and \$900 premium. 12-13

Md., Baltimore—Harbor—City, A. M. Denhard, Register, sold \$3,955,000 4% serial loan to group, composed of Hambleton & Co., Baltimore, Old Colony Trust Co., Boston, and Estabrook & Co., New York, at 99.20. 12-20

(Continued on page 110)

"Floods in the Valley of the Mississippi A National Calamity What Should Be Done About It?"

By J. P. Kemper, C. E.

A Book with an Educational Purpose in Three Parts
Part 1—Treats of the Father of Waters, Geologically and Historically.

Part 2—Treats of Recent Legislation and Plans.

Part 3—Appeals for a Broader Vision and More Comprehensive Treatment of Flood Waters by Putting them to Work on the Tributaries as Rapidly as Practicable, while Temporarily Waiting, with the Least Loss of Life and Property, the Surplus which Accumulates in the Lower River.

Distributing Agents

NATIONAL FLOOD COMMISSION
1014 Chartres St.
New Orleans, La.
Price \$3.00

WINTER CLIMATE UNSURPASSED

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ON THE BEAUTIFUL
GULF OF MEXICO

An all year resort of rare charm
and advantages

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A thoroughly modern family
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Every room with
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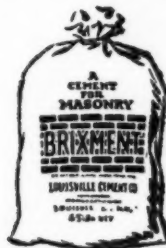
try it yourself

Of course you are interested in knowing that you can buy BRIXMENT for less than portland cement and lime. But your *real saving* will come from the smooth, easy-working quality of the mortar and the fact that, when the mason throws up a head joint, the mortar sticks to the brick!

One part BRIXMENT;
three parts sand. No
lime. No portland. Ready
to mix and use at once.

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General Offices: LOUISVILLE, KY.
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1610 Builders Building, Chicago
602 Murphy Building, Detroit
1015 Chestnut Street, Philadelphia
301 Rose Building, Cleveland



BRIXMENT

for Masonry and Stucco

FINANCIAL NEWS

(Continued from page 108)

Miss., Laurel—Road—Jones County Bd. of Supvrs. sold \$75,000 5½% Beat No. 4 bonds to Meridian Finance Co., Meridian, Miss., \$250 premium.

N. C., Wilson—Public Improvement—Town. Theo. A. Hinant, Clk., sold \$70,000 4½% \$1,000 denom. bonds to Stranahan, Harris & Oatis, Inc., Toledo, Ohio, \$70,250 and accrued interest. 12-27

Tex., McCamey—Water—City sold \$193,000 bonds to J. L. Arlitt, Austin, at \$126,000.

Tex., Alpine—J. H. Head, Supt. Alpine Independent School Dist., sold \$90,000 5% bonds to J. E. Jarratt Co., San Antonio, par, \$1100 premium and accrued interest. 1-3

Tex., Port Arthur—School Bd., L. B. Abbey, Sec., sold \$200,000 4½% School Dist. bonds to Roger H. Evans Co., Dallas, par, accrued interest and \$540 premium.

Building and Loan Associations

Miss., Jackson—Mutual Loan & Savings Assn., 405 Capital National Bank Bldg., organized; Julian P. Alexander, Pres.

New Financial Corporations

Ala., Montgomery—Security Mortgage and Bond Co., incorporated; Brame Hood, Pres., 2 Cramer Ave.

D. C., Washington—Washington Finance Service Corp., Second National Bank Bldg., 1331 G St., Northwest, capital \$250,000, opened; Edmund I. Kaufmann, Pres.; William B. Wolf, Sec.

Fla., Delray—Florida State Bank, capital \$10,000, chartered; A. P. Anthony, Pres.; W. J. Cathcart, V.-P.; H. A. Hubbard, Cashier.

Fla., Tarpon Springs—Tarpon Springs Securities Corp., chartered; J. C. McCrocklin, N. A. Van Winkle, E. D. Bylock.

La., Shreveport—Hill Investment Co., capital \$25,000, chartered; W. F. Hill, Pres., Mansfield Road.

La., Shreveport—American Finance Corp., capital \$100,000, and 5,000 shares non-par value, chartered; L. F. Underwood, Pres.; G. E. Lewis, Sec.

Md., Baltimore—United Corporation, Calvert Bldg., chartered; Frank C. Taylor, deal in securities.

Md., Baltimore—American Investors Consolidated Corp., First National Bank Bldg., chartered; Ira A. Hawkins, Jr.

Md., Hagerstown—Commercial Loan and Finance Co., Inc., chartered; Stewart H. Heironimus, J. Ott Funkhouser, Edgar C. Jones.

Md., Kensington—Lee-Kevan Corp., char-

tered; Edward B. Pruner, Harry Sternberg, Samuel Volkes; deal in securities.

Mo., Kansas City—Edward G. Fisher Investment Co., capital \$10,000, chartered; Edward G. Fisher, 7332 Forest St.

Mo., Kansas City—Ely & Mann Investment Co., chartered; L. B. Ely, 913 Grand Ave.

Mo., Unionville—National Bank of Unionville, capital \$40,000, chartered; P. D. Greggers, Pres.; F. O. Elson, Cashier.

Mo., St. Louis—Martha Investment Co., chartered; Walter F. A. Schneider, 2328 Louisiana St.

Mo., St. Louis—Major Investment Corp., capital \$12,500, chartered; Roy F. Britton, 626 Pine St.

N. C., West Asheville Sta., Asheville—First Loan & Investment Bank of West Asheville, authorized capital \$200,000, chartered; Jas. T. Roberts, Biltmore; George W. Craig, Flat Iron Bldg., Asheville; H. B. Posey, West Asheville.

Okla., Tulsa—Tulsa Industrial Finance Corp., capital \$1,100,000, organizing; temporary officers: Walte Phillips and Harry H. Rogers, Vice Presidents. 1-10

Tenn., Memphis—Manhattan Securities Co., affiliated corporation of Manhattan Savings Bank and Trust Co., capital \$250,000, organized; D. D. Robertson, V.-P. and Managing Dir.; Frank T. Cochran, Sec.-Treas.

Tenn., Alexandria—American Bank of Alexandria, capital \$25,000, B. N. Nixon, W. T. Hudson, both Alexandria; J. W. Wakefield, 2130 Capers Ave., Nashville.

Tenn., Watertown—American Bank & Trust Co., capital \$100,000, incorporated; James F. Caldwell, T. D. Webb, Harry L. Williams, affiliated with Fourth & First National Bank and Nashville Trust Co., Nashville, Tenn.

Tex., Beaumont—Texas National Securities Co., capital \$45,000, chartered; H. W. Gardner, 869 Calder St.

Tex., Brownwood—Central Texas Investment Co., capital \$10,000, chartered; O. C. Walker, O. L. Plyer, P. O. Petsik.

Tex., Dallas—Willard Investment Co., capital \$100,000, incorporated; R. Tobolowsky, 3115 Holmes St.

Va., Richmond—National Securities Corp., capital \$300,000, chartered; Oscar F. Hornsby, Sec., Broadway Natl. Bk. Bldg.

Exchange National Bank, and Exchange Trust Co., J. M. Davis, Pres., of both, Little Rock, Ark., consolidated as Exchange National Bank of Little Rock, \$400,000 capital.

Newport Finance Corp., Newport, Ky., plans increasing capital, \$250,000 to \$500,000.

Citizens State Bank and Trust Co., Hugh

Echols, V.-P. and Cashier, Goose Creek, Tex., absorbed Baytown State Bank, A. E. Kerr, Pres., Baytown, Tex.; Hugh Echols, will be active V.-P.; J. D. Dowdell, Cashier.

City Bank and Trust Co., J. W. Keeland, active V.-P., Houston, Tex., plans increasing capital, \$200,000 to \$300,000.

City National Bank, Cowan Rodgers, Pres., Knoxville, Tenn., increased capital, \$600,000 to \$1,000,000; Col. W. S. Shields, former president, elected Chmn. Bd. of Directors.

Continental Trust Co., Macon, Ga., increased capital, \$150,000 to \$350,000.

First National Bank, H. T. Abernathy, Pres., Kansas City, Mo., plans increasing capital, \$1,000,000 to \$2,000,000.

Houstonia Bank, D. E. Longan, Pres., absorbed Farmers' Bank, C. H. Houchen, Pres., all Houstonia, Mo.

Bank of Romney, John J. Cornwell, Pres., Romney, W. Va., plans increasing capital, \$75,000 to \$100,000.

Peoples Savings Bank, J. Holmes Davis, Pres., Wilmington, N. C., plans increasing capital, \$65,000 to \$100,000.

City National Bank and Trust Co., Clark Pease, Pres., Corpus Christi, Tex., increased capital, \$100,000 to \$200,000; formerly City National Bank of Corpus Christi.

Peoples National Bank, A. O. Weedon, Pres., Warrenton, Va., increased capital, \$50,000 to \$100,000.

Mercantile Trust & Savings Bank, R. L. Thornton, Pres., Dallas, Tex., plans changing name to Mercantile Bank & Trust Co. of Texas and increasing capital to \$2,000,000.

R-A Finance Corp., C. H. Featherston, Pres., Wichita Falls, Tex., plans increasing capital, \$200,000 to \$500,000.

La., Shreveport—Pirkie Investment Corp., capital \$250,000, chartered; L. H. Pirkie, 710½ Cotton St.

Lockwood Greene Information.

An attractive calendar for 1929 has been issued by Lockwood Greene Engineers, Inc., New York, Spartanburg, Boston, Chicago and Charlotte. For January is presented an illustration of the viscose rayon plant of the American Glanzstoff Corporation, Elizabethton, Tenn., capacity of 5,000,000 pounds a year, and other months picture and describe plants of various kinds at Woodruff, S. C.; Charlotte, N. C., and other cities in several states.

THE OSCAR T. SMITH & SON CO.

Manufacturing

BANK AND COMMERCIAL STATIONERS

407-9-11 E. Saratoga Street

BALTIMORE, MD.

CHARACTER

QUALITY

—SERVICE—

YOUNG & SELDEN COMPANY

MANUFACTURING

Bank and Commercial Stationers

BALTIMORE, MD.

WILMER BLACK, C. P. A. ROBERT W. BLACK, C. P. A.

BLACK & COMPANY

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Suite 905 GARRETT BUILDING - BALTIMORE, MD.
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DELAWARE REGISTRATION TRUST CO.

100 West Tenth Street
Wilmington, Del.

J. Ernest Smith, President and General Counsel.
Chas. Warner Smith, Vice-President.
Harry W. Davis, Secretary and Treasurer.

WE PURCHASE ISSUES OF SPECIAL ASSESSMENT BONDS
AND ADVANCE FUNDS TO RESPONSIBLE CONTRACTORS
ACCOUNT CONSTRUCTION COSTS SUCH ISSUES

CORRESPONDENCE WITH US INVITED

S. G. GARRAWAY & COMPANY

208 SO. LA SALLE ST. - CHICAGO, ILLINOIS

HELPFULNESS

is the motto of this Bank.

Let us tell you about it.

BALTIMORE COMMERCIAL BANK

GWYNN CROWTHER, President

26 South Street, Baltimore, Md.

Capital and Surplus \$1,350,000.00 Member Federal Reserve System

WE extend the facilities of our organization to those desiring information or reports on companies with which we are identified.

Electric Bond and Share Company

(Incorporated in 1905)

Paid-up Capital and Surplus, \$150,000,000

Two Rector Street

New York

YOUR BUSINESS SOLICITED

Particular attention given to financing
SOUTHERN PROPERTIES



Special Deposits
Office Building Loans
Trust Facilities
High Grade Bonds

THE CENTURY TRUST COMPANY of Baltimore

Capital \$1,000,000

Surplus \$1,700,000

MUNICIPAL NOTES
COMMERCIAL PAPER
COLLATERAL LOANS

W. O. GAY
H. D. MONTGOMERY
G. C. DEMOREST

W. O. GAY & CO.

(Established 1894)

27 William St.

NEW YORK

BOSTON

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SOUTHERN TEXTILE SECURITIES

A. M. LAW & COMPANY

Established 1892

Spartanburg, S. C.

We Buy and Sell

MUNICIPAL BONDS AND NOTES
CORPORATE PREFERRED
STOCK and BOND ISSUES

See Us on Southern Financing

R. S. DICKSON & CO., Gastonia, N. C.
New York Greenville, S. C. Goldsboro, N. C.

THE ROBINSON-HUMPHREY COMPANY MUNICIPAL AND CORPORATION BONDS

Established 1894

ATLANTA, GA.

We Underwrite MUNICIPAL BONDS in States of
GEORGIA and SOUTH CAROLINA

We Buy Bonds

City, County, School and Road from
Municipalities and Contractors

WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO.
CINCINNATI OHIO

Municipalities
Corporations
Railroads

Financed

MARX & CO. BIRMINGHAM ALABAMA

A Service Without Obligation

If you are planning to relocate your plant or establish a new one, let our Industrial Development Department make a survey of the situation as it affects your business.

We will furnish you in the strictest confidence, a complete and unbiased report of carefully weighed facts concerning Southern sites that meet YOUR needs.

This valuable cooperation is rendered without charge or obligation and is yours for the asking.

GENERAL SECURITIES
CORPORATION
INVESTMENT BANKERS
Birmingham, Alabama

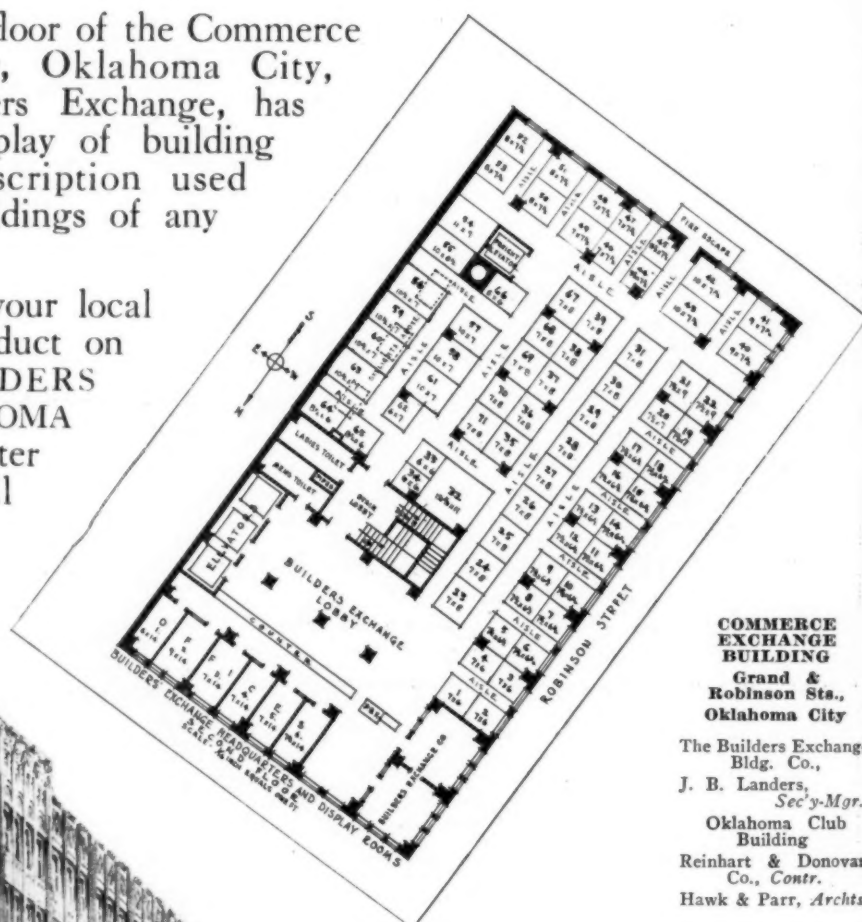
New York Offices:

535 Fifth Avenue

Exhibit your Products in the BUILDERS EXCHANGE of OKLAHOMA

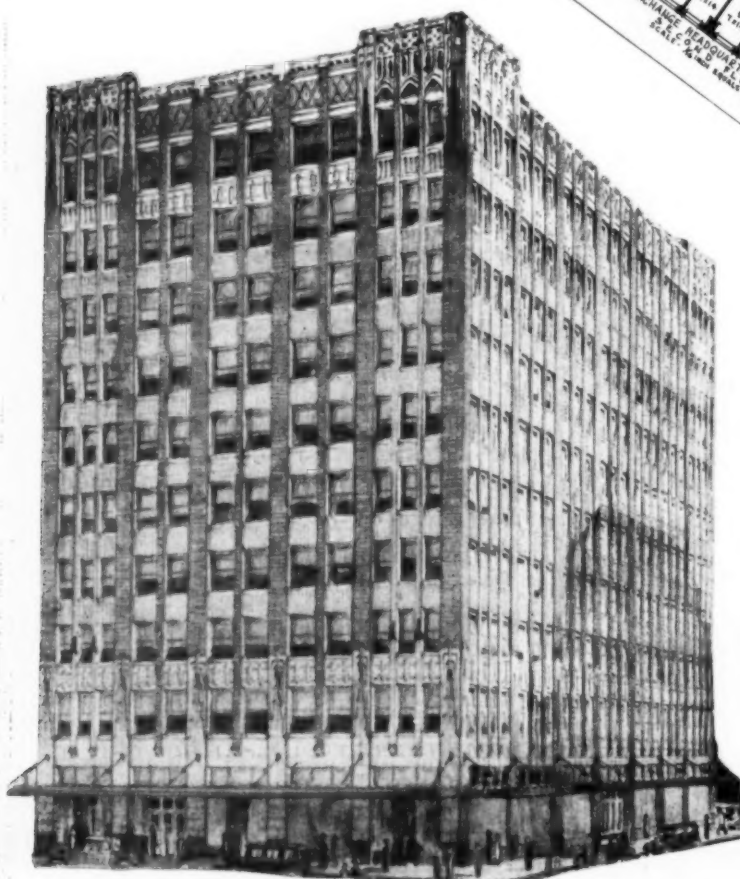
THE entire second floor of the Commerce Exchange Building, Oklahoma City, erected by the Builders Exchange, has been set aside for display of building materials of every description used in the erection of buildings of any nature, class or size.

For the benefit of your local dealer, place your product on exhibit in the BUILDERS EXCHANGE AT OKLAHOMA CITY, which is the center of the Mid-Continent oil field and the building headquarters of the southwestern trade territory.



COMMERCE EXCHANGE BUILDING
Grand & Robinson Sts.,
Oklahoma City

The Builders Exchange Bldg. Co.,
J. B. Landers, Sec'y-Mgr.,
Oklahoma Club Building
Reinhart & Donovan Co., Contr.
Hawk & Parr, Archts.



The Builders Exchange provides special service and contact with builders not to be had elsewhere.

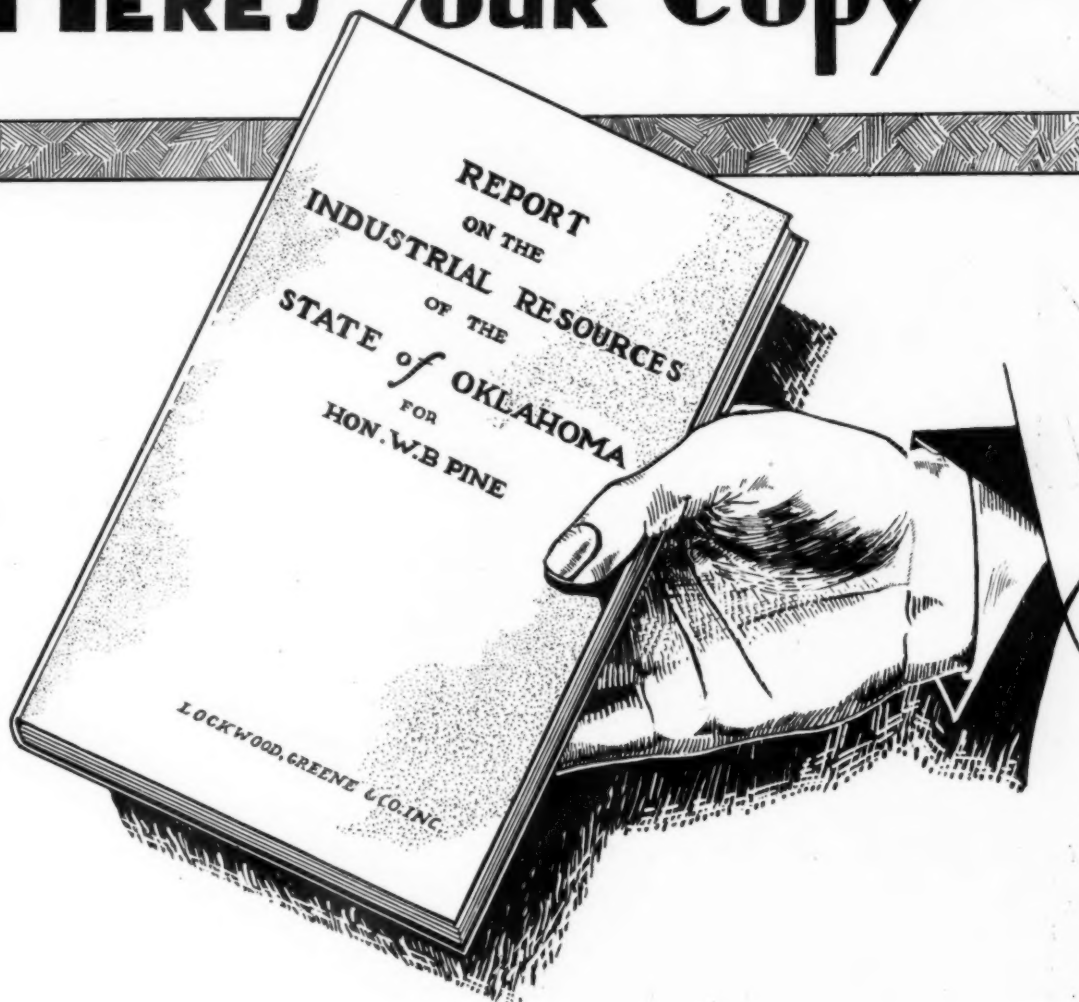
Look into the future
and grow with us.

BUILDERS EXCHANGE of OKLAHOMA

Oklahoma City
Oklahoma

J. B. Landers, Secy.-Mgr.

Here's Your Copy



An Unbiased Survey

Prepared by Lockwood, Greene & Company, Inc., Engineers, of New York City, presenting a general discussion of the resources and possibilities of Oklahoma and the opportunities for the profitable operation of the following industries:

COTTON MILLS
GARMENT FACTORIES
GLASS MANUFACTURING
METAL WORKING AND
METALLURGICAL
OPERATIONS
CONSUMERS OF
NATURAL GAS
OIL REFINERIES
GRAVEL PLANTS

ASPHALT PLANTS
FLOUR AND GRIST MILLS
ZINC AND LEAD PLANTS
FOOD PRODUCTS
CANNERIES
DAIRYING
FURNITURE FACTORIES
GRANITE, LIMESTONE
AND SANDSTONE
QUARRIES, ETC., ETC.

The report is full of interesting facts and figures for anyone seeking an industrial location, and a copy will be gladly sent upon application to



W. B. PINE
United States Senator
WASHINGTON, D. C.

At OKLAHOMA

A New Major Oil Field



On Tuesday, December 4th, at 3:15 p.m., the Indian Territory Illuminating Oil Company brought in a gusher with a daily production of 10,000 barrels—Oklahoma City's first oil well! This gave tremendous impetus to drilling operations. Preparations are being rushed for immediate additional drilling.

December 4, 1928, is destined to rank with April 22, 1889, the date of the memorable "run" that opened the Cherokee Strip and first settled Oklahoma City, in marking the city's epochal stages of growth.

The new oil field, right at its door, inevitably means a stupendous growth for Oklahoma City!

OKLAHOMA CITY has for years participated from a distance in the discovery and development of other Oklahoma oil fields—but she has now for the first time her own private oil field—and what a difference there is in the degree of excitement!

For the new oil field is only ten minutes from the heart of Oklahoma City—a scant six miles from the center of the financial district.

With the discovery well flowing liquid gold at more than 400 barrels per hour—crews working furiously setting up

rigs for the drilling of at least 30 additional wells immediately—Oklahoma City is experiencing the novel sensation of an oil boom without the lawlessness, inconvenience, or hardship that the words "oil-boom" bring to mind.

Oklahoma City, Capitol of the State, is already one of the leading markets of the Southwest territory. With oil to add impetus and momentum to its already remarkable growth, industries located here will prosper accordingly.

As key city to a billion dollar market, center of a state larger than any state east of the Mississippi River, Oklahoma City has the following sources of wealth:

Zinc—Largest Production in U. S.
Lead—Second Largest Production in U. S.
Cotton—Third Largest Production in U. S.
Winter Wheat—Second Largest Production in U. S.
Petroleum—Largest Production in U. S.

Oklahoma City is the logical point from which to serve this wealthy market. Already 75% of all commodities sold in the state are distributed from here. Forty per cent of all goods manufactured in the state are made here.

Center of the Great Cotton and Winter Wheat Area

These two great resources, so easily available to Oklahoma City's industrial area, are the fundamental factors of this city's wealth.

Oklahoma City Offers Specific Opportunities to these Industries

Automobile Assembling Plants
Box and Barrel Factories
Canning Industries
Clay Products
Commercial Bakeries
Creamery and Cheese Factories
Dry Goods and Clothing Manufacturers and Jobbers
Farm Machinery Factories and Jobbers

Furniture Factories
Grain Elevators
Iron and Steel Fabricators
Leather and Shoe Factories
Oil and Gas Industries
Oil Machinery
Smelting and Glass Industries
Yarn and Knitting Mills

CITY'S Doorstep

The uniformly high value of cotton crops is shown as follows:
1926—\$94,575,000 1927—\$102,663,000 1928—\$102,660,000

Winter wheat values for the same period were:
1926—\$87,019,000 1927—\$40,046,000 1928—\$65,558,000

The total value (1928 only) of Oklahoma's manufactured, farm, mineral, and forest products will reach the staggering total of \$1,465,150,000!

Natural Gas for Fuel at 15 to 20 Cents Per 1,000 Cubic Feet

For more than 21 years, Oklahoma City and its territory have had unlimited supplies of natural gas available to industry at very low rates.

It is a paradoxical fact that this territory now has a greater supply of this clean, cheap, and convenient fuel than was available 21 years ago, and the recent discoveries guarantee a lifetime supply.

Any manufacturer whose processes require applied heat will do well to study this phase of Oklahoma City's advantages, for this cheap fuel will be instantly available to him here at a saving that can be translated into profits.

Industrial Sites Abound at Reasonable Cost

Ideally situated industrial sites, with excellent transportation facilities, are plentiful in and adjacent to Oklahoma City. Cost of ground has been lower here for a decade than in any city of similar size in America. As greater industrial decentralization comes, this property in the heart of raw material resources, is certain to increase in value.

Grain Reservoirs Needed

Exceedingly safe investment opportunities are offered to industries using grain as raw materials. The grains grown here in 1928 are shown in total bushels or tons:

Wheat	59,062,000 Bushels
Corn	70,886,000 Bushels
Oats	26,026,000 Bushels
Hay	1,435,000 Tons
Misc.	34,524,000 Bushels

Cereal manufacturers are offered an exceptional opportunity. The raw material used in their business is produced here. The finished product is used here. A branch factory for the Great Southwest, situated right in the heart of the territory, would pay well.

There are numerous other specific opportunities for industry, some of which are listed at the bottom of this advertisement. Interested readers are invited to communicate with the Industrial Department of the Chamber of Commerce for free

Market Survey Service as well as any other data of special interest. Oklahoma City offers greater opportunities right now than at any other time in the past.

Oklahoma City and the surrounding market are growing as never before. You are invited to grow with us.

Building has shown a steady, consistent gain year after year in Oklahoma City. 1928, as did 1927, shows a 50% increase!

1926.....	\$10,024,228
1927.....	16,238,714
1928.....	25,000,000

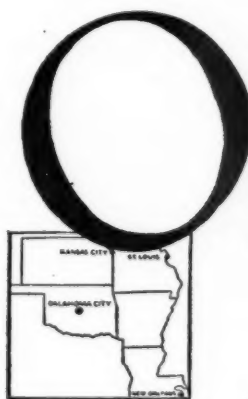
(Approximate)

Estimated 1929 Building Program, \$29,000,000.

The buildings shown here are new — completed during the past 18 months. The \$4,000,000 Oklahoma-Biltmore Hotel shown at the right, has just been contracted for.

The Photographs are:

- 1—Oklahoma-Biltmore Hotel.
- 2—Telephone Building.
- 3—Medical Arts Building.
- 4—Okla. Gas & Electric Bldg.
- 5—Okla. Savings & Loan Bldg.
- 6—Cotton Exchange Building.
- 7—Petroleum Building.



FOR INFORMATION, WRITE OR WIRE
The CHAMBER OF COMMERCE

OKLAHOMA CITY

NO RAMPS TO REMOVE BY HAND—FOR THE VERTICAL BOOM DIGS STRAIGHT DOWN



The Man Who Bossed the Crew Now Does All the Digging

"By the hand shoveling method, it was necessary to have a man in charge, just to keep the crew moving. Now we put the same man on a Barber-Greene Ditcher and make him do all the digging."

That's how one ditching contractor explained how the Barber-Greene Vertical Boom Ditcher cut his costs to the core.

Instead of the wages of a shovel gang, he now has a one man payroll to meet.

For, without the aid of expensive hand shovels—without costly breakdowns or delays—the "milling" action of the

Barber-Greene Vertical Boom chews its way through frozen ground, coral rock, hard pan, macadam, caliche, sticky clay, and root-filled ground—at a speed that knocks the bottom out of high ditching costs.

And because the vertical boom digs straight down, and comes straight up, there are no ramps to remove by hand.

"Ditching Snapshots and Records" describes Barber-Greene Ditchers in detail and shows them operating on all kinds of jobs. In addition, complete service records and cost figures show exactly how much was saved on each one. Send for your copy today.

Vertical
Boom

Barber-
Greene

Barber-Greene Company, 560 West Park Ave., Aurora, Ill.

DITCHER

Four to Seven Feet Maximum Depths
Standard Widths: Eighteen to Twenty-four Inches
Also, Conduit and Curb and Gutter Specials

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1929
Office

\$1,000,000 Louisiana Oil Refinery Planned.

Belle Chasse, La.—The newly organized Big Chief Refinery Co., El Dorado, Tex., plans to erect a \$1,000,000 oil refinery here, it is announced, and has awarded construction contract to the Graham Engineering Co., New Orleans. The first unit is to be ready for operation by August. Approximately 100 men will be employed in the plant.

The Graham Engineering Co. advises the MANUFACTURERS RECORD that it is rushing plans and specifications for the plant and is open for bids on all classes of work, including foundations, piling, structural steel, wharves, brick work, pipe work, tanks and still and is immediately interested in proposals to fence the property. It desires data on the latest developments in the oil refining industry, as it is the purpose to make the plant modern in all details. Prices and data are also wanted on hot oil pumps, continuous acid and doctor treaters and bubble towers, bids to be opened on all work between the middle and last of February. Pipe stills made by the Bigelow Liptak Corp., Detroit, will be used. The Big Chief Refining Co. has offices in New Orleans and New York.

Development in Aeronautics.

Figures released by the aeronautics branch of the Department of Commerce disclose 16,667 miles of airways in operation, of which 14,155 are mail airways, and 3916 miles of mail airways are scheduled. The average miles scheduled daily for all services run to 39,060, of which 27,848 include mail. Among the airport investments by cities, the department cites Fort Worth, \$175,000; St. Louis, Mo., \$2,000,000, and St. Joseph, Mo., \$200,000. In Atlanta, where the land was donated, the cost of equipment, exclusive of lighting, is given as \$25,000. Contracts for construction have been awarded on the Kansas City-St. Louis and St. Joseph-Omaha routes, and

on the Atlanta-Miami route control stations for weather reports have been established at Atlanta, Jacksonville and Miami, with auxiliaries at Waycross, Daytona Beach and Palm Beach. Municipalities which have proposed airports include Paducah, Ky.; Columbus, Miss.; Eureka Springs, Ark.; Shawnee, Okla.; Jackson and Jellico, Tenn., and Bonham, Jefferson, Kerrville, Longview, Paris, Tulia and Tyler, Texas.

Texas Asks Bids on 72 Miles Roads.

Austin, Tex.—Proposals will be opened January 21 by the State Highway Commission for the construction of seven road projects embracing a total of approximately 72 miles. Four projects call for a total of 49.97 miles of grade and drainage construction, two for a total of 12.64 miles of concrete paving, and one project for 9.33 miles of grading and concrete paving.

To Award 12 Miles Concrete Roads.

Contracts will probably be awarded January 21 by the State Highway Commission, Austin, Tex., for constructing 12.5 miles of concrete roads in Cameron County, of which approximately 5 miles will be on state highway No. 100 between Barrera and Point Isabel and about 7.5 miles on state highway No. 96 between Harlingen and the Willacy County line.

Bids Asked on Big Texas Bridge.

Crockett, Tex.—Bids will be opened January 22 by the State Highway Commission, Austin, for constructing a steel and concrete bridge across the Trinity River here, to connect Houston and Madison counties. The structure will be 3764 feet long and will have timber pile trestle approaches.



PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS



Bids close January 31, 1929.

DEPARTMENT OF THE INTERIOR, Washington, D. C., January 11, 1929. Sealed proposals (in duplicate) will be received at the Department until 2 o'clock P. M. Thursday, January 31, 1929, for furnishing all labor and materials and performing all work in the construction and completion of Home for Nurses, Boiler House, Employees' Quarters and Dining Hall, including all outlets thereto, roads, sidewalks, grading, water, sewer, electric lines, etc. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and in making awards the records of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. At the discretion of the Secretary, drawings and specifications may be obtained upon application to the Department. A certified check in the sum of \$100 will be required as a guaranty for the safe return of the plans loaned. The right is reserved to reject any or all bids, waive technical defects, accept one part and reject the other as the interest of the Government may require. Proposals must be securely enveloped, marked "Proposals for construction of Home for Nurses, etc., Freedmen's Hospital," and addressed to Secretary of the Interior, Washington, D. C. E. C. Finney, First Assistant Secretary.

Bids close January 21, 1929.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., December 21, 1928.—SEALED BIDS will be opened in this office at 3 P. M. January 21, 1929, for the construction of the U. S. Post Office at Newark, Del. Drawings and specifica-

GENERAL INFORMATION

About Proposal Advertising in Manufacturers Record

PUBLICATION DAY: Thursday.

FORMS CLOSE: 10 A. M. Tuesday.

When too late to send copy by regular mail to reach us by 10 A. M. Tuesday, forward by night letter or air mail when possible.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened or when daily insertions are necessary to meet legal requirements.

The rate is the same for both publications—35 cents a line each insertion.

tions, not exceeding six sets, may be obtained at this office, in the discretion of the Supervising Architect, by any satisfactory general contractor, and provided a deposit is made of \$15.00 for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. JAS. A. WETMORE, Acting Supervising Architect.

Bids close January 29, 1929.

SEALED BIDS, in triplicate, subject to the conditions contained herein, will be received by the U. S. Veterans' Bureau, Room 764, Arlington Building, Washington, D. C., until 11 A. M. January 29, 1929, and then publicly opened, for furnishing all labor and materials and performing all work for constructing an Acute Building, including roads, walks and drainage, at U. S. Veterans' Hospitals, North Little Rock, Arkansas. This work will include excavating, reinforced concrete construction, hollow tile, brick work, cast stone, marble work, floor and wall tile, iron work, steel sash, steel stairs, with slate treads; slate, metal and built-up roofing, metal lathing, plastering, stuccoing, carpentry, insect screens, painting, glazing, hardware, plumbing, heating, electrical work, electric elevator, and outside sewer, water, steam and electric distribution system. SEPARATE BIDS will be received for Concrete Chimney and Electric Elevator, all as set forth on bid form. Bids will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract and, in making awards, the records of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. At the discretion of the Director, drawings and specifications may be obtained upon application to the Construction Division, Room 764, Arlington Building, Washington, D. C. Deposit with application of a check or postal money order for \$25.00, payable to the TREASURER OF THE UNITED STATES, is required as security for safe return of the drawings and specifications within ten days after date of opening bids. FRANK T. HINES, Director. December 28, 1928.

Bids close February 15, 1929.

WAR DEPARTMENT, United States Engineer Office, Montgomery, Ala., Jan. 7, 1929. SEALED BIDS, in duplicate, will be received until 2 P. M. February 15, 1929, and then publicly opened for furnishing all labor and materials and performing all work for building houses, transferring and installing all machinery, piping, gallowes frame, A frame, spud frames and spuds, for one 15-inch pipe-line dredge. Further information on application.

Bids close February 5, 1929.

\$500,000 4½% Gold Bonds

BIBB COUNTY, GEORGIA

Macon, Georgia, Jan. 1, 1929.

Sealed bids will be received until 11 o'clock A. M., Feb. 5, 1929, by the Board of County Commissioners of Bibb County, Georgia, at their regular place of meeting in the City of Macon, for the following issue of Bonds of said County, dated Jan. 1, 1929:

\$500,000 School Bonds, maturing \$10,000 on Jan. 1, 1930 to 1944, inclusive, and \$25,000 on Jan. 1, 1945 to 1958, inclusive.

Said bonds are in denomination of \$1000 and are in coupon form, with privilege of registration as to principal. Principal and semi-annual interest at four and one-half per centum per annum (January 1 and July 1), payable in Gold Coin at the office of the County Treasurer.

The approving opinion of Messrs. Storey, Thorndike, Palmer & Dodge of New York City as to legality will be furnished to the purchaser without charge.

Bonds will be prepared under the supervision of the United States Mortgage and Trust Company, of New York City, which will certify as to the genuineness of the signatures of the officials signing the bonds, and the seal impressed thereon.

Bids are desired on forms which will be furnished by the County, and each bid must be accompanied by a certified check on an incorporated Bank or Trust Company, payable to the order of M. Lettice, County Treasurer, for two per cent of the par value of the bonds bids for. No bid will be accepted for less than par and accrued interest.

Bonds will be delivered in Macon, or New York, at bidder's option, on February 5th, 1929, or as soon thereafter as the bonds can be prepared.

The right to reject any and all bids is reserved.

Checks will promptly be returned to unsuccessful bidders.

BY ORDER OF THE BOARD OF COMMISSIONERS OF BIBB COUNTY.

P. H. WATSON,

Clerk of Board of Commissioners.

Bids close February 9, 1929.

U. S. Engineer Office, Wilmington, N. C.—Sealed bids, in duplicate, will be received until 12 o'clock noon, February 9, 1929, and then publicly opened for furnishing all labor and materials and performing all work for dredging approximately 11,632,000 cubic yards, in Sections I and II of the Intracoastal Waterway from Beaufort to Cape Fear River, N. C. Information upon application.

Bids close January 23, 1929.

U. S. Engineer Office, 300 Custom House, Baltimore, Md. Sealed proposals will be received here until 2 P. M., January 23, 1929, and then opened for dredging approximately 48,000 cubic yards of material in Kent Island Narrows, Md. Further information on application.

Bids close January 31, 1929.

High School

Montgomery, Ala.

Sealed proposals will be received up to 10 o'clock A. M. January 31, 1929, at the office of the COUNTY BOARD OF EDUCATION of Montgomery County, Montgomery, Alabama, for the erection and completion of a two-story fireproof JUNIOR HIGH SCHOOL BUILDING, including portion of same with basement, according to plans, specifications and details prepared by FREDERICK AUSFELD, Architect, Suite 404 Shepherd Building, Montgomery, Alabama. The building has a frontage of approximately 254 feet.

To insure consideration, each bid must be accompanied by a certified check signed by an authorized official of a National Bank or of a State Bank in the amount of 3% of the amount of bid, and made payable to L. C. CARDINAL, President of the County Board of Education of Montgomery County, Montgomery, Alabama, as a guarantee of good faith in that the Contractor will enter into a contract and make bond as called for in the specifications.

Plans, specifications and details will be ready for contractors on or before the 15th day of January, 1929, and will be issued only to and proposals considered from Contractors who submit evidence to the County Board of Education of their satisfactory financial ability and experience in the execution of contracts of similar character.

At the discretion of the President of the County Board of Education, plans, specifications and details may be obtained from the Architect by a deposit of a certified check in the amount of FIFTY DOLLARS (\$50), this amount to be returned to those who submit bona fide bids, hold receipt of the return of the plans and specifications and have returned same in good condition.

Sub-contractors and material dealers may obtain plans, specifications and details by the payment of the actual cost of same, which will not exceed THIRTY DOLLARS (\$30), which amount will not be returned.

All plans and specifications must be returned to the Architect on or before the date of the opening of bids.

Plans and specifications may be examined free at the office of the Architect.

The County Board of Education of Montgomery County, Montgomery, Alabama, reserves the right to reject any and all bids.

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES

FIRE CLAY, bauxite (aluminum), asbestos, manganese, fullers earth, gilsonite and rock asphalt.

BOX 653, KANSAS CITY, MO.

I HAVE FOR SALE the finest asphalt property in Kentucky. Also timber tracts, some containing oak suitable for staves.

E. D. WATKINS,
Irvine, Ky.

ASBESTOS FOR SALE

FOR SALE—193 acres in Franklin County, Va., containing large deposit of high-grade Amphibole Asbestos. Two reports of accredited Geologist and Mining Engineers. State Chemist report. Location, eight miles from railroad on sand-clay roadway under construction. Suggested uses are wall plaster, boiler and pipe coverings, fireproof paint, furnace linings, fireproof safe linings, fire bricks, asbestos shingles, etc., etc. Samples upon request. Terms of sale, part cash and small royalty. One of the best industrial opportunities in this section. Inspection invited.

W. H. PRICE, Owner,
1228 Penmar Ave., S. E., Roanoke, Va.

Rates, Terms and Conditions

RATES: 30 cents a line each insertion. Minimum space accepted, four lines. In estimating the cost allow six or seven words of ordinary length to a line. When the advertisement contains a number of long words proper allowance should be made.

Rates for Special Contract:

100 lines 28c a line
300 lines 26c a line
500 lines or more 25c a line

TERMS: For transient advertising cash with order; check, postoffice or express money order or stamps accepted.

On special contract advertising, bills are rendered monthly covering space used each month, payable within ten days.

CONDITIONS: No patent medicine, oil or mining stock advertisements or questionable or undesirable advertisements will be accepted. The assistance of our readers in excluding undesirable advertisements is requested. No display type used.

MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES

LIGNITE

FOR SALE OR LEASE—Estimated 10,000,000 tons highest grade lignite in U. S. Close to surface on main line Southern Railway. Complete analysis furnished. A. H. George (Owner), Meridian, Mississippi.

TIMBERS FOR SALE

FOR SALE—1000 BAND SAWED OAK TIMBERS ON SIDING WHITE SULPHUR, W. VA. 500 pieces 6"x8"x8' and 500 pieces 7"x9"x8'6", grading ones, twos, threes and fives. Price sixty cents each. Also car 4/4 Chestnut. P. O. Box 93, Point Pleasant, Pa.

FARM AND TIMBER LAND

MEXICO, PANAMA TIMBER LANDS—220,000 acres Durango, Mexico, 800,000,000 feet long-leaf pine timber, \$1.00 per acre, in fee; 4,900,000 acres Panama; we can deliver titles; priced to sell; 60,000 acres British Honduras agricultural lands and timber, priced on request. 679 acres Ills. corn lands priced at \$35.00 per acre; 628 acres corn lands, priced at \$30.00 per acre. Write LOCK BOX 108, Rockford, Ills.